PB-229 721

PROCEEDINGS: CONFERENCE IN THE MATTER OF POLLUTION OF THE INTERSTATE WATERS OF THE ANDROSCOGGIN RIVER, HELD AT PORTLAND, MAINE ON 5 FEBRUARY 1963

Public Health Service
Washington, D.C.

5 February 1963

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Proceedings

CONFERENCE
in the matter of
POLLUTION OF THE INTERSTATE WATERS
of the
ANDROSCOGGIN RIVER

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

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CONFERENCE

in the matter of

POLLUTION OF THE INTERSTATE WATERS

of the

ANDROSCOGGIN RIVER

Convened on the Call
of the
Secretary of Health, Education, and Welfare
Under Section 8 of the
Federal Water Pollution Control Act
(33 U.S.C. 466g et seq.)
Portland, Maine
February 5, 1963

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Washington 25, D.C.

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Conference in the Matter of Pollution of the
Interstate Waters of the Androscoggin River
Involving the States of New Hampshire and
Maine, at 9:45 a.m., Eastern Standard Time,
Tuesday, February 5, 1963, Civil Service
Commission Hearing Room, United States Post
Office, 125 Forest Avenue, Portland, Maine.

[illegible] des [illegible] ~~report~~
Biological and chemical water quality;
statements and discussion
[illegible] recommendations,
standards, enforcement & personnel
letters; and statistical data for
states of Maine and New Hampshire
for 1963.

ATTENDANTS

PRESIDING:

Mr. Murray Stein, Chief, Enforcement Branch, Division of Water Supply and Pollution Control, Public Health Service, United States Department of Health, Education, and Welfare, Washington, D. C.

PRESENT:

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE REGION I, BOSTON, MASSACHUSETTS:

Mr. Herbert H. Rogers, Regional Program Director, Water Supply and Pollution Control

Mr. Arthur Menard, Regional Attorney

Mr. Alfred E. Peloquin, Sanitary Engineer

REGION II, NEW YORK, NEW YORK:

Mr. Earl Anderson, Regional Program Director, Water Supply and Pollution Control

ROBERT A. TAFT SANITARY ENGINEERING CENTER, CINCINNATI, OHIO:

Mr. Hayse Black, Industrial Waste Consultant

Mr. F. W. Kittrell, In-Charge, Pollution Evaluation Unit

Mr. A. D. Sidio, Public Health Engineer, Pollution Evaluation Unit

Mr. Kenneth Mackenthun, Aquatic Biologist

PUBLIC HEALTH SERVICE, DIVISION OF WATER SUPPLY AND POLLUTION CONTROL, ENFORCEMENT BRANCH, WASHINGTON, D. C.

Mrs. Rheta Piere

Mr. Peter Kuh

REPRESENTATIVES OF OTHER FEDERAL AGENCIES:

Mr. Mark Abelson, Chairman, Northeast Field Committee Department of the Interior

REPRESENTATIVES OF OTHER FEDERAL AGENCIES: (Continued)

Captain Kenneth C. Abplanalp, Public Words Officer, Naval Air Station, Brunswick, Maine

Mr. William A. Slagle, Jr., U. S. Army Corps of Engineers, New England Division

Norman R. West, Lieutenant, U. S. Coast Guard Base, South Portland, Maine

REPRESENTATIVES OF STATE AND INTERSTATE AGENCIES:

Mr. Lachlan F. Blair, Chairman, New England Interstate Water Pollution Control Commission

Mr. George C. West, Deputy Attorney General, State of Maine

Mr. Raeburn Macdonald, Chief Engineer, Maine Water Improvement Commission

Mr. Alexander J. Kalinski, Assistant Attorney General, State of New Hampshire

Mr. Joseph C. Knox, Executive Secretary, New England Interstate Water Pollution Control Commission

OTHERS PRESENT:

L. K. Parker, Auburn Sewer District, Auburn, Maine

Daniel Webster, Portland Cement Association, Portland, Maine

E. R. Hitchner, Maine Water Improvement Commission

Robert M. Drummond, International Paper Company, Glens Falls, New York

R. I. Ashman, WSC, Augusta, Maine

R. R. Balmer, DuPont, Wilmington, Delaware

R. E. Hunter, E. C. Jordan Company, Inc.

George J. Maher, Director, P.W.D., Lewiston, Maine

W. R. Adams, Jr., City Engineer, Lewiston, Maine

Stuart F. Martin, Selectman, Rumford, Maine

OTHERS PRESENT: (Continued)

Edward Penley, Press Herald, Portland, Maine

Lawrence J. Richard, Selectman, Rumford, Maine

Leonard J. Cohen, Sunday Telegram, Portland, Maine

Daniel Webster, Jr., City Engineer, Auburn, Maine

Mrs. G. M. Dusinberre, New Hampshire League of Women Voters

Alvin W. Wene, Roy F. Weston, Inc., Newton Square, Pennsylvania

Mrs. Harvey D. Woodling, President, League of Women Voters, Maine

Albert R. Stronach, Waterfalls Tissue Company

R. E. Elwell, U. S. Gypsum

Laurence T. Kraynick, Whitman & Howard

Thomas L. Clifford, TW Mgr., Paris, Maine

Harold B. Hutchinson, Brunswick, Maine

John P. Bibber, Brunswick, Maine

E. Boyd Livesay, Brunswick-Topsham Water District, Brunswick, Maine

Paul W. Bean, Lewiston, Maine

Earle A. Tarr, Jr., Auburn Sewerage District, Auburn, Maine

Mrs. Charles W. Allen, 41 Rackleff St., Portland, Maine, League of Women Voters

Joseph C. Lawler and Frank L. Heaney, of Camp, Dresser & McKee, Construction Engineers, Boston, Mass.

Hugh Mields, Jr., U. S. Conference of Mayors

Donald E. Nicoll, Administrative Assistant to Edmund S. Muskie, United States Senator from the State of Maine

John P. Jabar, Waterville, Maine, Field Representative to Edmund S. Muskie, United States Senator from the State of Maine

Martin F. Smith, Jr., Representative of Thomas J. McIntyre, United States Senator from the State of New Hampshire

PROCEEDINGS

OPENING STATEMENT
BY MR. STEIN

MR. STEIN: The conference is open.

This conference, in the matter of Pollution of the Interstate Waters of the Androscoggin River involving the States of New Hampshire and Maine, is being held under the provisions of Section 8 of the Federal Water Pollution Control Act.

Under the provisions of the Act, the Secretary of Health, Education, and Welfare, is required to call a conference when, on the basis of reports, surveys, and studies, he has reason to believe that interstate pollution subject to abatement under the Act, is occurring.

This conference was called by the Secretary of Health, Education, and Welfare, as, on the basis of reports, surveys, and studies, he had reason to believe that pollution subject to abatement under this Act is occurring.

You know, this is a conference between the States and interstate agencies involved and our Department. I would like to invite the representatives of the States to join us, and the interstate agency, at the head table, if you want to do it, now, or later, at your discretion. I don't think joining us at the head table will prejudice your standing as conferees, representatives, or anything else. Would you rather wait?

MR. KALINSKI: We would rather wait.

MR. STEIN: In order to indicate our purposes here and the purpose of the conference technique, I think in lieu of the usual opening statement perhaps a little further clarification might be appropriate here. For that purpose I have been authorized to use the remarks in large part of the Assistant Secretary of Health, Education, and Welfare, James M. Quigley, which he presented before the State and Interstate Water Pollution Control Administrators Meeting in Chicago, Illinois, on December 6, 1962.

I might indicate that as a Federal official, and as many of you know here I am a career Federal official with about twenty-one years of service, we are charged with carrying out the laws as they are enacted by the Congress and as directed to do by the Executive. Mr. Quigley has been designated by the Secretary of Health, Education, and Welfare, Mr. Celebrezze, as being the Cabinet official, or sub-Cabinet official, if you will, who is in charge of water pollution control matters.

In order perhaps to understand the references in these remarks, it should be indicated that Mr. Quigley at the time of the passage of the Federal Water Pollution Control Act amendments in 1961, was a Member of Congress, and, until I say differently, the use of the word "I" refers to Mr. Quigley speaking for the Administration. I will relate to you his remarks:

"Federal-state relations is one of those catchall phrases that seems to mean so many things to so many people that I am not sure what it does mean. Too often I have observed that the term 'federal-state relations' is used in a strictly negative sense. Federal-state relations is the reasons given why we at HEW should not do this, or why we should not do it the way we had planned or why we should not do it at this time."***

"If this meeting is to have positive results I think that it is absolutely essential that the balance of today be devoted to a frank and honest discussion of the problems we face. If such discussions are not achieved, then, I submit, I will be wasting my time here, you will be wasting yours and all of us will be wasting the taxpayers' money which was spent to bring us here.

"To avoid any such abuse of the poor taxpayer and, in the interest of getting such a discussion started, I would like at this time to speak my mind frankly.

"I have already indicated that I am not at all sure what people mean when they talk about federal-state relations. Perhaps, then, the most important contribution I could make to this discussion is to state what I believe is or should be encompassed by the phrase 'federal-state relations' when it is used in connection with the matters of our mutual interest - water pollution control.

"The first and most essential ingredient to a workable formula for good federal-state relations in this area is a clear recognition by everybody concerned at both the state and federal level that both the states and the Federal government are involved in water pollution control matters.

"This, as you are well aware, was not always so. I am not unmindful that many of you resisted, some rather vigorously, the idea of the Federal government becoming involved in a matter which traditionally you had handled at the state and local level. You had every right to fight such a fight. But, let's face it, that fight is now over and done. The Federal government is in the water pollution control business. In the year 1962 this is the plain unvarnished fact."

And I might add parenthetically that our presence here indicates that in 1963 it is still the unvarnished fact.

"It is around this unvarnished, though for some of you, perhaps, unpleasant fact that any question of federal-state relations must center. If you refuse to accept this fact, if your efforts are directed to fighting a rear guard action against what Congress has done, if you deem it your role to set up pockets of resistance against Federal action, or if you are willing to have the Federal government come into your state only on your terms then, indeed, the going is going to be rough for all of us.

"If, every time the Federal government attempts to carry out its responsibilities in the field of water pollution control which involves your state, you consider it to be your function to quibble over every technicality and to take advantage of every dilatory tactic your lawyers "can dream up then neither the cause of federal-state relations or of water pollution control are likely to be advanced very quickly or very smoothly.

"And I think you will agree with me that the spectacle of a state walking out on a federal water pollution control conference or of an interstate agency, acting more on the basis of rumor and suspicion rather than knowledge and fact, passing a formal resolution denouncing the Federal government can hardly be construed as conduct calculated to improve federal-state relations.

"Yet it is in the face of such recent actions that we are here assembled to discuss ways and means of improving federal-state relations in the field of water pollution control. Let me be blunt, I interpret such actions as coming much closer to an open declaration of war against the Federal government than a pledge to work together as allies in a mutual effort to defeat the common enemy of dirty water.

"We are -- or at least we should be -- in this fight together.

"If the Federal government is in the water pollution control business, it does not follow that the states are out of it. Quite the contrary: the act of Congress which projected the Federal government into water pollution matters clearly spelled out that it is 'the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the states in preventing and controlling water pollution'. I know of no person in either the legislative or executive branch of your Federal government who is in disaccord with that policy. I know of no act by any individual within the Department of Health, Education, and Welfare that has been in violation of this policy of states' rights and states' responsibilities. If you know of any, I would appreciate it if you would bring it to my attention immediately.

"Even if there were no clearly expressed Congressional policy, there would be no desire on the part of the Federal government to nudge anybody out of the water pollution control field. Common sense dictates that whatever the Federal government accomplishes in this area it can never do more than supplement what the States are doing. This is true not just in water pollution matters but in all well conceived programs of federal aid. The vast federal highway construction program did not put the states out of the business of building and maintaining a road system. The Hill-Burton program of federal aid for hospital construction did not relieve the states and local communities of maintaining hospitals. A basket full of federal aid to education programs, including the land-grant college act, the GI Bill of Rights, the Federal Impact legislation and the National Defense Education Act, has left unshaken the basic local responsibility for American education.

"In water pollution, as in all of these other matters, a good federal program is one which complements and supplements what the states are doing. I am interested in having a good federal water pollution program.

"Another observation that I might dare to make is that in dealing with some people who are involved at the state level with water pollution control matters, I sometimes come away with the feeling that for them the mere existence of a federal program in this area is something which they consider as a personal affront. It is almost as if Congress insulted them personally when they put the federal program on the statute books.

"Let's be frank, many members of Congress -- myself included -- voted for the Federal Water Pollution Control Act in 1956 because they were of the view that the states were not doing the job as adequately and as effectively as it needed to be done. But this was a conclusion which was reached, not on the basis of personalities, but in the face of some rather self-evident facts. First, these facts showed that a number of states, but unfortunately a limited number, has truly effective programs of water pollution control. Second, even those states that had basically sound programs had their full share of problems arising from inadequate budgets, a limited number of qualified personnel and the unpleasant but undeniable fact of life that some of the biggest polluters in their state were also some of the state's biggest industries and municipalities against whom the bringing of an effective pollution abatement action was an extremely difficult assignment from what ever way you wanted to look at it -- including politics. And, third, there was Congressional recognition that the most effective state program was likely to leave undone a great deal that needed to be accomplished if this nation was to adequately reclaim and protect its limited supply of clean water.

"It was in the face of such facts as these and not out of any personal pique that Congress acted and, in my judgment, wisely and well. If you believe that water pollution control is a matter that can be handled at the state and local level, or if you believe that where a joint state action is necessary it can be handled effectively through interstate compact arrangements, I agree with you. But if you believe that these are matters that can only be handled by the states individually or in compact then I do not agree.

"I do not believe, for example, that the rate of construction of municipal sewage treatment facilities would have tripled in this country in the last six years without the tremendous boost it was given by the grants program Congress wrote into the law in 1956. Nor are we likely to find the solution to our yet unsolved pollution problems without the kind of extensive and expensive research which Congress has recognized must be underwritten to a considerable extent by your Federal government. I am sure that there are people, some here at this meeting perhaps, who do not share these beliefs. But I rather suspect that even our severest critic would concede that through the use of the grant mechanism your Federal government is now making a substantial contribution towards cleaning up the polluted waters of this Nation and that the kind of research necessary to assure our country the most unlimited supply of fresh, clean water that its future needs will demand can only come about if the Federal government continues to assume the lion share of the ever increasing cost of this research.

"But these are the parts of our program about which we hear little or no criticism. We can be pretty popular at the Department of Health, Education, and Welfare as long as all we do is hand out money for grants for construction or grants for research, but these cheers sometimes turn to jeers when we attempt to carry out our responsibilities in the enforcement field.

"This is understandable. Cops are seldom the most popular people in a community. But good policemen worry more about doing their duty than improving their popularity and their communities are all the better for it. In water pollution, it is much the same. The key to an effective water pollution control program is enforcement. Research is necessary; grants for construction are helpful but unless they are accompanied by a vigorous enforcement program the job, in my judgment, is never going to get done the way it must be done."****

"If I gauge accurately the complaints addressed to this phase of our program, they appear to be two-fold. First, nobody seems to like the idea of enforcement and, in the second place, everybody seems to especially dislike the way we go about it. The term 'conference' seems to have become a dirty word in the lexicon of most state people. I get the impression that you people at the state level really would not mind the Federal government exercising its enforcement authority in water pollution matters if only we were nice enough to do it without calling a conference.

"The perfect example of this apparent mental block regarding the conference approach is to be found in Resolution 4 which, as I understand it, was considered and adopted at the Interstate Conference on Water Problems which you attended yesterday. Let me read from the key paragraph of that Resolution. It says 'WHEREAS, there has been rising concern over instances in which the Department of Health, Education, and Welfare has initiated enforcement proceedings under enforcement provisions of the Federal Water Pollution Control Act without full consultation with the state and interstate agencies to determine the nature and extent of their respective programs in the affected areas;

'NOW THEREFORE BE IT RESOLVED ... that procedures under the enforcement provisions of the Federal statute shall not be invoked without full prior consultation between federal, state and interstate authorities in the areas concerned and without giving such state and interstate authorities full opportunity to carry out a control program which is mutually acceptable ...'

"Now I don't know who drafted that Resolution and, as a consequence, whose toes I might be stepping on when I comment that, in my judgment, the person who wrote that Resolution either (1) never read the Federal law, or (2) read it and doesn't understand it, or (3) read it, understood it and is now somehow, by the passage of this Resolution, seeking to repeal the law as Congress passed it.

"Let me quote for your benefit the key provision of that law. 'The Secretary shall call ... a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in sub-section (a) endangers the health or welfare of persons in a state other than that in which the discharge or discharges originated is occurring.'

"I would point out two things about the law. First, the language is mandatory. The Secretary is required to call a conference whenever he has persuasive evidence that interstate pollution of a harmful nature is occurring. Second, the purpose of calling a conference is to achieve the very objective set forth in the Resolution adopted yesterday which I have just quoted. The reason for the conference is to have full consultation with the state and interstate agencies concerned to determine, first, the facts and, second, the nature and extent of any interstate pollution and, finally, to determine the kind and extent of the abatement programs in the affected areas which are being carried out by the industries, local government, the states or interstate agencies.

"I would point out that Congress might have directed that the first step the Secretary of Health, Education, and Welfare would take in an enforcement proceeding would be the convening of a formal administrative hearing. Or they could have directed that when the Secretary had evidence of interstate pollution he would immediately turn the matter over to the Justice Department to begin a court proceeding. Instead, Congress wisely rejected both of these approaches and determined instead to use the conference technique which, as many of you are well aware, has worked with considerable success under a number of state water pollution control programs.

"Inherent in the Resolution which the interstate conference on water problems adopted yesterday and, I suspect, in other criticisms that have been directed at our Department in this area is, I submit, a gross misunderstanding, and a complete misrepresentation of what is embodied in the conference technique which Congress wrote into the Federal Water Pollution Control Act.

"Judging by some of the reactions, one gets the impression that in the minds of some state officials that the calling of a conference by the Secretary is tantamount to an indictment for malfeasance or misfeasance in office by the state officials in the affected areas. Nothing could be farther from the truth. The decision of the Secretary of Health, Education, and Welfare to call a water pollution conference means nothing more than that he has had brought to his attention evidence which indicates that harmful pollution of an interstate nature is occurring. The calling of such a conference does not mean that the Secretary, or anybody in his Department, has found this to be the fact and the convening of such a conference does not mean that anybody is being accused of anything. The basic purpose of the conference is to bring together all of the interested parties, public and private, to informally review the situation and to make a determination of what the facts are and to consider what additional corrective steps might be taken to abate any interstate pollution which the conferees agree exists.

"The conference concerns itself with such questions as: Is there pollution? If so, is it interstate in nature? If it is interstate in nature, is it having an adverse effect on the health or welfare of persons in a state other than where the pollution originated? If the answers to any of these questions prove to be in the negative, the conference adjourns because it lacks both the facts and the law to justify its further continuation. If, on the other hand, the answers to these questions are in the affirmative, the conference then directs its attention to what steps are being taken -- by industries, by the municipalities, by the states or by the interstate agencies to correct the situation and what additional steps might be taken. If this is not full consultation with the state and interstate agencies then I don't know what it is.

"I trust that I have demonstrated by my presence here today that I am sincerely interested in promoting the best possible federal-state relations in the field of water pollution control. I am interested in achieving this goal, first, because Congress has imposed such a responsibility on our Department, second, because this is the only sensible approach to the problem. Only by working together, only by supplementing and complementing each others efforts can we hope to achieve the kind of water pollution control in this country that we must have to assure this Nation's future needs for clean water.

"To this end, the Department of Health, Education, and Welfare pledges its full cooperation to work with the states and the interstate agencies to accomplish the basic purposes of the Federal Water Pollution Control Law. This is not something that we insist can only be done on our terms, nor, however anxious we may be to achieve results, are we ready to do it on your terms. This is something that we both must do under the terms which Congress clearly set forth for all of us to follow. If you will allow us to do what Congress has directed us to do without heaping coals of criticism on our heads, if, instead, you will cooperate with us in helping to meet our Departmental responsibilities, you may be surprised to learn that a substantial part of that responsibility is to help you meet your own responsibility. I am confident that you will discover, as a number of states already have, that the conference technique as embodied in the Federal Water Pollution Control Act is not a painful and degrading experience for state and interstate water pollution control agencies but rather a helpful device for focusing public attention on problems you have long struggled with alone; an effective way to highlight the efforts you have already made to meet these problems and a helpful means to enable you to mount an even greater effort to abate pollution in your area of responsibility.

"Federal-state relations is a two-way street. In this instance we in the Federal government are ready, willing and anxious to go as far down this street as we possibly can. How far we can is not for you to decide or for us to decide. This is something that has been determined by the Congress. We sincerely hope that you will meet us half way."

This concludes the remarks of the Assistant Secretary on this program.

I would like now to tell you a word about the conduct of the conference.

Mr. Jack Rund is making a stenographic report of these proceedings for the purpose of aiding us in preparing a summary, and also providing a record of what is said and done here. We will make the summary and transcript available to the conferees and to the States, even if they choose not to be conferees, and the interstate agency. Other people desiring to get these summaries can either get in touch with their State agencies or their interstate agency. If they are not available there, you can get in touch with us. This is a public document and available without cost.

All of the conferees and representatives of the State and interstate agencies will be called upon to make statements, and these representatives may have people they have invited to participate in the conference as participants, that is, the States, the interstate agency and the Federal government. At the conclusion of any statements made the conferees will be given an opportunity to comment or ask questions. This procedure has proven effective in developing a clear statement of the problem and reaching agreements on equitable solutions.

Now, I would like to call on Mr. Herbert Rogers, the Regional Program Director for our Department, with headquarters in Boston. I might say the only other one up here now is myself, and I am Murray Stein from headquarters of the Department of Health, Education, and Welfare.

Mr. Rogers will present the statement of the Public Health Service, but before he does, again we might extend an invitation to the States and interstate agency to sit up here with us, or we can wait for your turn. Do you people want to join us at the head table or not?

MR. KALINSKI: No, thank you, sir. I just want to wait until you call upon us.

MR. STEIN: Mr. Rogers.

By the way, before you begin, Mr. Rogers, I know there are some extra chairs down here. I wish you people in back would come down and make yourselves comfortable. Don't be afraid about sitting in front. It is not like church. If you want to leave, you can leave without being embarrassed.

Perhaps we can try to get some more chairs in the room.

MR. KALINSKI: Mr. Chairman, may I inquire what Mr. Rogers is going to testify on? Is it the same presentation that was gone through at the last proceeding in September 1962?

MR. STEIN: No

MR. KALINSKI: I'm sorry. I didn't hear you.

MR. STEIN: Would you identify yourself, please?

MR. KALINSKI: Alexander J. Kalinski.

MR. STEIN: May I ask if anyone gets up to speak, if they are going to make an extended statement, that you come to the lectern and identify yourselves by name and affiliation, for the record.

MR. KALINSKI: I am Assistant Attorney General for the State of New Hampshire.

May I ask the courtesy of making a statement on behalf of the State of New Hampshire prior to Mr. Rogers' presentation? I don't want to disrupt your proceedings. If you prefer to have me wait, I will be glad to wait.

MR. STEIN: No, Mr. Kalinski, we would be glad to extend you that courtesy, but, Mr. Kalinski, I would like to point out we had Mr. Rogers, our Regional Representative, call the interstate agency and New Hampshire and Maine repeatedly for the purpose of getting together with you people before the conference to set up a procedure, so we could proceed smoothly without such inquiries as this. The interstate agency, as I understood it, told us they followed the leads of the States. Maine told us they had to get in touch with New Hampshire. New Hampshire was very reluctant to return the phone calls, but when the representative did make his phone call he said he had to confer with counsel.

I know I myself last summer, when I spent my vacation budget up here, was certainly impressed by your New England courtesy, and we came here and expected this kind of courtesy to prevail in all transactions, whatever our difficulties might be. I will say to you, Mr. Kalinski, if you want to make your statement now, and you think that would be the thing to do, we would be happy to have you make it.

MR. KALINSKI: Just a moment, Mr. Stein. May I state for the record that at no time since September 24, 1962, other than the meeting at Portsmouth in December, where you were present and Mr. Kuh was present, has anybody contacted me personally who represents your Water Pollution Control with reference to procedure. My statement does cover that aspect in some detail.

Since this is your proceeding, I don't wish to impose on you in any way, and I will be glad to wait until Mr. Rogers finishes.

MR. STEIN: No. You can speak now, if you wish.

MR. Kalinski: I have a rather lengthy statement to make, and in the light of the statement you have read by Mr. Quigley here I think it is quite important that the statement of the State of New Hampshire be made so that the positions are very clear here, and there be no misunderstanding about it.

MR. STEIN: I don't think there will be a misunderstanding.

MR. KALINSKI: No, I am sure there is not, Mr. Stein.

MR. STEIN: This is your option. Do you want to make the statement now?

MR. KALINSKI: If I may, I would very much appreciate it.

MR. STEIN: All right.

STATEMENT OF ALEXANDER J. KALINSKI, ASSISTANT ATTORNEY GENERAL, STATE OF NEW HAMPSHIRE

MR. KALINSKI: Mr. Rogers, Mr. Chairman and Ladies and Gentlemen.

My name, as I have already stated, is Alexander J. Kalinski and I am an Assistant Attorney General for the State of New Hampshire.

I have a prepared statement here which I will make available to the conference and to the members of the press.

I appear here today as a legal representative of the State of New Hampshire and of the New Hampshire Water Pollution Commission, the State agency charged with the responsibility of administering our water pollution law.

My purpose in appearing here today is to set forth in the record of the proceeding in some detail the position of the State of New Hampshire with respect to the initiation of enforcement proceedings with reference to the Androscoggin River by the Secretary of the U.S. Department of Health, Education, and Welfare, Mr. Anthony J. Celebrezze. Our position is basically a legal one in which we challenge the jurisdiction of the Secretary of the Department of Health and Welfare to initiate these so-called "enforcement" proceedings under the Federal Water Pollution Control Act, in the light of the factual background and circumstances existing in this situation.

At the outset, I would point out that I do not appear here in the capacity of a "conferee" participating in a conference. It should be noted as a matter of record that the New Hampshire Water Pollution Commission has not designated a "conferee" to participate in these proceedings.

MR. STEIN: Mr. Kalinski, is it possible for you to give a copy of your remarks to the reporter? I think he may be having difficulty. Or don't you have an extra copy?

MR. KALINSKI: At the moment I am sticking to my prepared text and I will furnish him with several copies of it, and you also, after I finish making the statement.

MR. STEIN: You don't want to make it easier for the reporter to have it while you are going along?

MR. KALINSKI: I don't know how he can possibly read it while I am speaking if he will be transcribing it.

MR. STEIN: You said you have several copies.

MR. KALINSKI: Yes, I have, and I will make them available, Sir.

MR. STEIN: All right, Mr. Kalinski. You may proceed.

MR. KALINSKI: May I be allowed the courtesy of making my statement without interruption, if I may, sir? I didn't interrupt you while you were making yours.

Nor do we concede that these proceedings constitute a "conference" as that term is used in Section 8(c) of the Federal Water Pollution Control Act. I would reiterate that I appear here only as a legal representative of the New Hampshire Water Pollution Commission from the office of the Attorney General of the State of New Hampshire.

In order to make our legal position clear, I will review briefly, first of all, some of the pertinent provisions of the Federal Water Pollution Control Act, which is the law under which the Secretary of the Department of Health, Education, and Welfare purports to be acting in this case. Any action of the Secretary in this case must be in conformity with the provisions of this Act, and his actions in this case are proper only if they comply with its provisions. We seriously question not only the propriety but also the legal validity of the Secretary's action with respect to the initiation of enforcement proceedings against New Hampshire with reference to the Androscoggin in the face of the clear and explicit provisions of the Federal Water Pollution Control Act. In our judgment, the Secretary's actions in this case constitute an attempt on his part to usurp and preempt the rights, powers and responsibilities in this instance of both the States of New Hampshire and Maine, and such actions, we maintain, are specifically prohibited by the Federal Water Pollution Control Act.

The Federal Water Pollution Control Act was originally enacted by the Congress in 1948. It was amended in 1956 and then again in 1961. The basic purpose of the Act is the prevention and control of water pollution in the waterways of the nation. On the Federal level, the Act is administered by the Secretary of the Department of Health, Education, and Welfare. Within that Department, the Public Health Service is charged by the Secretary with the responsibility of administering the Act.

Basically, the Federal Water Pollution Control Act seeks to accomplish its purpose by stressing cooperation between State, interstate and Federal agencies. The Act directs the Secretary, in cooperation with State and interstate water pollution control agencies, and with municipalities and industries involved, to develop comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries thereof and improving the sanitary condition of surface and underground waters. To this end the Act provides for cooperative research, investigation and training in this field. The Act also provides for grants to states and municipalities for purposes of water pollution control programs. The Act directs the Secretary to encourage cooperative activities by the States for the prevention and control of water pollution. By way of summary, then, the whole thrust of the Act is one of cooperation among State, interstate and Federal agencies involved in the area of water pollution control.

Let us examine several provisions of the Act in more detail which have a direct bearing upon the legal position which the State of New Hampshire is taking in this case. First of all, Section 1(a), which appears under the heading "Declaration of Policy," states as follows, and I quote:

> "Section 1. (a) In connection with the exercise of jurisdiction over the waterways of the Nation and in consequence of the benefits resulting to the public health and welfare by the prevention and control of water pollution, it is hereby declared to be the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution, to support and aid technical research relating to the prevention and control of water pollution, and to provide Federal technical services and financial aid to State and interstate agencies and to municipalities in connection with the prevention and control of water pollution. To this end, the Secretary of Health, Education, and Welfare (hereinafter in this Act called the 'Secretary') shall administer this Act."

This certainly is a clear expression on the part of Congress of its legislative intent in enacting this legislation. The key phrase in this declaration of policy is the part which states as follows, and I quote again:

> ". . . it is hereby declared to be the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution . . ."

It is clear that Congress did not intend to take away any of the rights and responsibilities of the individual States in the field of preventing and controlling water pollution. The Federal Water Pollution Control Act was clearly intended to supplement and assist State action in this field, not to usurp or preempt it. To make this even more manifestly clear, the Congress stated in Section 1 (b), under the Declaration of Policy, as follows:

> "(b) Nothing in this Act shall be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States."

This is the background and the frame of reference within which the remaining provisions of the Federal Water Pollution Control Act must be interpreted, particularly the provisions of Section 8, which is entitled "Enforcement Measures Against Pollution of Interstate or Navigable Waters." This is also the background and the frame of reference within which the Secretary of the Department of Health, Education, and Welfare must administer the provisions of this Act, particularly the enforcement provisions to which I will now refer.

Section 8 of the Federal Water Pollution Control Act contains the so-called enforcement provisions of the Act. This section of the Act gives the Secretary the authority to commence enforcement proceedings against States under certain circumstances, which can end in court action to compel a State to abate pollution in interstate or navigable waters.

Consistent with the Declaration of Policy contained in Section 1 of the Act to which I have previously referred, Section 8(b) states as follows:

> "(b) Consistent with the policy declaration of this Act, State and interstate action to abate pollution of interstate or navigable waters shall be encouraged and shall not, except as otherwise provided by or pursuant to court order under subsection (g), be displaced by Federal enforcement action."

Again Congress clearly sets forth its intent that the primary jurisdiction over controlling and preventing of water pollution is to rest with the individual States, and that Federal enforcement proceedings are to be used only as a last resort in a most serious case.

Sections 1(a) and 1(b) and 8(b) of the Federal Water Pollution Act contain the key to the legal position which the State of New Hampshire is taking here today. I will amplify this position in some detail later in this statement.

Let us examine the remaining provisions of Section 8 which refers to enforcement measures by the Secretary under the Act. Section 8(a) makes the pollution of interstate or navigable waters in or adjacent to any State which endangers the health or welfare of any persons, subject to abatement. Section 8(c) defines the initial steps to be taken by the Secretary in starting the enforcement proceedings to abate pollution of interstate or navigable waters which can end in court action against the State concerned.

Section 8(c)(1) provides, first of all, as follows:

> "(c)(1) Whenever requested by the Governor of any State or a State water pollution control agency, or (with the concurrence of the Governor and of the State water pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, if such request refers to pollution of waters which is endangering the health or welfare of persons in a State other than that in which the discharge or discharges (causing or contributing to such pollution) originates, give formal notification thereof to the water pollution control agency and interstate agency, if any, of the State or States where such discharge or discharges originate and shall call promptly a conference of such agency or agencies and of the State water pollution control agency and interstate agency, if any, of the State or States, if any, which may be adversely affected by such pollution. Whenever requested by the Governor of any State, the Secretary shall, if such request refers to pollution of interstate or navigable waters which is endangering the health or welfare of persons only in the requesting State in which the discharge or discharges (causing or contributing to such pollution) originate, give formal notification thereof to the water pollution control agency and interstate agency, if any, of such State and shall promptly call a conference of such agency or agencies, unless, in the judgment of the Secretary, the effect of such pollution on the legitimate uses of the waters is not of sufficient significance to warrant exercise of Federal jurisdiction under this section."

Section 8(c)(1) then goes on to provide as follows:

> ". . . The Secretary shall also call such a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in subsection (a) and endangering the health or welfare of persons in a State other than that in which the discharge or discharges originate is occurring."

This last part of Section 8(c)(1) is the provision under which the Secretary purports to be acting in this case since it is a fact that neither the Governor of the State of Maine nor the Governor of the State of New Hampshire, nor the water pollution control agencies of either State, nor the governing body of any municipality in either State, has requested these Federal enforcement proceedings.

Sections 8(c)(2) and (3) of the Act refer to the "conference" to be called as the initial step in the enforcement proceeding.

Section 8(d) of the Act gives the Secretary authority to recommend remedial action to the appropriate State water pollution control agency if he believes, at the conclusion of the conference, that effective progress toward abatement of such pollution is not being made and that the health or welfare of any persons is being endangered. Sections 8(e) and 8(f) outline a formal Hearing Procedure and court action to be taken if the Secretary's recommendations are not followed.

In order that the intent of the Congress in enacting the Federal Water Pollution Control Act be made perfectly clear, I will quote certain excerpts from Committee Reports of the U.S. House of Representatives. House Report No. 1446 deals with the Water Pollution Control Act Amendments of 1956. Under the heading of "Purpose" this House Report states in part as follows:

> "The bill would amend the Water Pollution Control Act by replacing it with new provisions designed to extend and strengthen the act.
>
> "The bill as reported reemphasizes the policy of the Congress to recognize, preserve, and protect the primary rights and responsibilities of the States in controlling water pollution.
>
> "S. 890 as passed by the Senate would provide a legislative base for the cooperative program which the Public Health Service is carrying on with the State and interstate pollution-control agencies. The objective of these Federal activities is to support and assist State and interstate agencies.
>
> "The committee is impressed with the seriousness of the increasing water-pollution problem and the need to control pollution as a significant measure for conserving the Nation's water resources. There are extensive public expenditures for construction of large-scale projects to develop national water resources. The abatement and prevention of water pollution is essential to the full realization of these developments. The committee is convinced that primary responsibility for regulatory control of water pollution should remain with duly constituted State and interstate authorities. Regulatory authority at the Federal level should be limited to interstate pollution problems and used on a standby basis only for serious situations which are not resolved through State and interstate collaboration. Considering our industrial and metropolitan expansions, water pollution is an involved and complex problem from both the administrative and technical points of view. The committee believes there is a real need for Federal assistance designed to support, stimulate, and complement state efforts."

Under the heading "Changes in Existing Law" and the subheading thereunder entitled "State-Interstate-Federal Collaboration on Interstate Pollution Problems," this House Report states as follows:

> "With respect to interstate pollution -- where pollution from one State affects the health and well-being of the people of another State -- the bill authorizes a clear procedure designed to assist in the solution of such problems through cooperative State action. The Federal program would be available to aid in this work. Should a situation develop where a serious interstate pollution problem is not solved through joint State or interstate action, the bill authorizes Federal court action if requested by the affected State or with the consent of the State wherein the pollution originates. The bill modifies the present law by clarifying the procedures short of court action and adds the provision by which Federal court action can be taken if requested by the affected State.

> "It is the intent of the committee that the Surgeon General will work with State water pollution control authorities and, where they exist, with interstate authorities, before proceeding with enforcement provisions of section 7. Further, where State or interstate actions are taken which demonstrate reasonable progress toward solution of pollution problems, the Surgeon General shall not initiate interstate Federal enforcement measures.
>
> "The committee believes the procedures authorized in the bill constitute a reasonable balance between the primary rights of the States to control water pollution within their boundaries, and the rights of States seriously affected by pollution from another State to have available to them a practical remedy.
>
> "The committee has restored the provision in the existing act that the courts, before entering a judgment, are to give consideration to the practicability and to the physical and economic feasibility of securing abatement of any pollution proved."

House Report No. 306 deals with the Water Pollution Control Act Amendments of 1961. Under the heading of "Major Provisions of the Bill" and the subheading thereunder entitled "States' rights and responsibilities," this House Report states as follows:

> "The bill reaffirms and clarifies congressional policy to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution.
>
> "Nothing in the bill is intended to impair or in any manner affect any right or jurisdiction of the States with respect to the waters of the States, including but not limited to the power, authority, and jurisdiction of the states to enforce State water pollution control laws and regulations.
>
> "The committee has exercised extreme care to assure that the language of the bill will allow continued comprehensive action by the States in the field of water pollution control. There certainly can be no assumption that the Federal interest in the field of water pollution abatement authorized by this bill is so dominant as to preclude State action. The proposition is well established that the protection of the health and welfare of the citizens of a State is a proper subject for the exercise of the State Police power. The bill provides specifically for cooperation with the States and its aim is to encourage and assist States and local communities in their efforts to control water pollution, not to usurp or preempt their rights, powers, or responsibilities in this field."

Those are the words of Congress, the words of our duly elected representatives -- not my words.

With that review of the provisions of the Federal Water Pollution Control Act and the intent of the Congress in enacting it, I will now discuss the facts of this situation.

On September 4, 1962, the New Hampshire Water Pollution Commission received a notice signed by the Secretary of the Department of Health, Education, and Welfare notifying it that he was calling a conference under the provisions of the latter part of Section 8(c)(1) of the Federal Water Pollution Control Act which I have quoted previously. This notice stated that the conference would take place on September 24, 1962, at Portland, Maine. As I have stated previously, the conference is the first step in an enforcement proceeding under Section 8 of the Federal Water Pollution Control Act.

Section 8(c)(2) of the Federal Water Pollution Control Act provides in part as follows:

> "(2) . . . Not less than three weeks' prior notice of the conference date shall be given to such agencies."

This notice we received was therefore legally defective in that it gave the New Hampshire Water Pollution Commission only twenty days' prior notice of the proposed conference instead of the twenty-one days specifically set down as a minimum by Congress.

In the words of a recent Federal court decision, in their anxiety they sliced the bacon too thin.

More important, however, was the fact that this written notice was the first knowledge our Water Pollution Commission had that the Public Health Service officials were concerned with pollution in the Androscoggin River affecting the health or welfare of any persons in the State of Maine. In spite of all the provisions in the Federal Water Pollution Control Act directing the Secretary to cooperate with State and interstate agencies, and to develop mutual comprehensive programs for water pollution control, no prior discussion was had with the appropriate State officials in the States of Maine and New Hampshire, nor was any prior indication given that the Public Health Service considered pollution in the Androscoggin River a serious problem warranting Federal intervention. No preliminary discussions of any kind were held with our Water Pollution Commission by any Public Health Service officials prior to calling this conference. In view of all the provisions in the Federal Water Pollution Control Act stressing cooperation among State, interstate and Federal agencies in this field, this fact alone makes us seriously question the motives of the Public Health Service officials in calling this so-called "conference."

The notice calling the "conference" was defective also in that it did not delineate what the purpose of the conference was and what would be discussed at such conference.

When our Commission received this notice, they held a meeting as soon as they could, on September 12, 1962, and thereafter wrote to the Public Health Service requesting a postponement of the "conference" in order to give them time to explore the basis of such a "conference" and also in order to properly prepare for it. Under the circumstances such a request was certainly reasonable. In this letter our Commission pointed out the vagueness of the notice, its failure to state the matters which would be discussed at the conference and the reason for calling it, its failure to delineate the manner in which the conference would be conducted, and also our Commission requested that it be given the benefit of whatever reports, surveys and studies which had been accumulated by the Public Health Service officials on the basis of which they had determined to call a conference.

On September 17, 1962, one week before the scheduled "conference," our Commission received a copy of a "Report on Androscoggin River," dated August 1962, from the Public Health Service. With the "conference" only a week away, this left them with insufficient time to review the document properly. Subsequent review of this document established to our Commission that the factual data contained therein was outdated.

On Thursday, September 20, 1962, our Commission received a letter from Mr. Murray Stein, Chief Enforcement Officer of the Public Health Service, indicating that their request for a postponement was denied. On Friday morning, September 21, 1962, our Commission requested me, as their legal representative, to telephone Secretary Anthony J. Celebrezze and verbally request a postponement of the "conference" called for the following Monday, September 24, 1962. I tried all day to reach Mr. Celebrezze by telephone but he was unavailable. In the late afternoon of that day, I finally reached Assistant Secretary James M. Quigley. Mr. Quigley assured me as a brother attorney that my request was a reasonable one and indicated to me that he would attempt to call off the conference under the circumstances, but that he wanted to check on it first and call me back. Instead of Mr. Quigley calling me back, Mr. Stein called me back and said that the conference would go on as scheduled and that he had no authority to do anything further in the matter.

Under the circumstances, I advised our Commission not to attend or participate in any way in the conference. Assistant Attorney General William J. O'Neil went to the conference as the legal representative of our Commission for the sole purpose of renewing our request, and after the request was denied by Mr. Stein, he, along with representatives of Maine and of the New England Interstate Water Pollution Control Commission, left the conference room and did not participate further. Although there were no representatives of the only two States directly interested and concerned, Mr. Stein proceeded to hold an alleged "conference," and I put that word in quotes because by any stretch of the imagination this was not a "conference" either as a practical matter or as a matter of legal contemplation as the term "conference" is used in the Federal Water Pollution Control Act.

Our objections to the indefiniteness of the notice, to the fact that it was not given in time, and to the proceedings held on September 24, 1962, at Portland, Maine, without designated conferees of the States of Maine and New Hampshire being present are neither technical nor merely frivolous. Our objections are serious legal ones because the end result of such proceedings would have serious economic, social and financial consequences upon the State of New Hampshire as a whole and upon certain communities and industries along the Androscoggin River in the State of New Hampshire in particular. Since this is true, we are entitled to preserve our legal rights in every step of an enforcement proceeding such as the present one.

The Federal Water Pollution Control Act does not define the word "conference." In the ordinary meaning of the word, it may be defined as a meeting of several persons for deliberation, for the interchange of opinion, or for the removal of differences of disputes. As used in the Federal Water Pollution Control Act it obviously means something more. Such a conference provides the Secretary with conclusions, on the basis of which he can recommend remedial action to the State concerned. If the recommended remedial action is not taken, the Secretary may enforce his recommendations by a hearing procedure and then by court action in the Federal District Court.

The rights of parties in both civil and criminal proceedings in all of our courts, both State and Federal, are safeguarded by definite procedural rules. In criminal cases the accused is entitled to know what the charges are against him and he is protected by definite procedural and substantive safeguards. In civil cases, both parties are entitled to know the issues raised, and an orderly method is provided for determining these issues. There are definite ground rules set forth which govern these proceedings.

This is not true, however, with respect to the "conference" proceedings provided for in Section 8(c) of the Federal Water Pollution Control Act. There evidently are no ground rules in such proceedings except those that the conference chairman makes up as he goes along. A review of Title 42 of the Code of Federal Regulations indicates that the Secretary of the Department of Health, Education, and Welfare has failed to promulgate any rules or regulations which would apply to conference proceedings, although he has promulgated regulations which apply to the hearings under Section 8(e) of the Federal Water Pollution Control Act. This, then, is a serious defect in the manner in which the Federal Water Pollution Control Act is being administered by the Secretary.

Section 10(a) of the Federal Water Pollution Control Act states as follows, and I quote:

> "Sec. 10(a) The Secretary is authorized to prescribe such regulations as are necessary to carry out his functions under this Act."

In order to prescribe such regulations, the Secretary is required by law to promulgate them in the Federal Register, a daily publication of all regulations issued by Federal agencies, which are then incorporated into the Code of Federal Regulations. Only when they have been so promulgated do these regulations have the force and effect of law.

As I have stated previously, the Secretary has not seen fit to prescribe any regulations to cover the conference procedure. There are no ground rules which the State of New Hampshire can use as a guide in determining what position to take now that it has been informed that the Secretary has called a conference under the enforcement sections of the Federal Water Pollution Control Act. We have the curious situation then where the Secretary has promulgated extensive regulations to govern the second step of the enforcement proceedings, but has promulgated no regulation governing the first part of the enforcement proceedings wherein the Secretary obtains his conclusions on the basis of which he can recommend remedial action and then start the second part of the enforcement proceedings, the so-called hearing procedure which can end up in court action.

To say that such a situation is unfair to the State of New Hampshire would be to grossly understate the situation. As we see it, it is akin to a situation where a lower court would say to a defendant in a criminal case or a civil case, for that matter, as follows: "There are no rules that govern the proceedings in this court. We will discuss your case, and as we go along we will make up the ground rules. Then we will decide the merits of the case. But you need not have any fear, if you do not agree with out decision because you can appeal our decision to a higher court where there are specific ground rules and where your rights will be protected." In effect, then, to state it another way, the Public Health Service officials have determined that the State of New Hampshire is guilty of polluting the waters of the Androscoggin River, and it remains guilty until it proves itself innocent.

To demonstrate that our concern is neither a fanciful nor an imaginary one, I will quote a portion of Mr. Stein's remarks at the proceedings held on September 24, 1962, here at Portland, Maine. As I indicated previously, Mr. Stein proceeded to hold a so-called "conference" with his own Federal representatives, although no conferees of the States of Maine and New Hampshire were present and participating. At Page 103 of the transcript of those proceedings furnished to us, Mr. Stein states as follows, and I quote:

> " . . . Again I might say we would like to hear from the States before we come to any conclusion, but it is pretty obvious from the report that Mr. Sidio gave that pollution in New Hampshire is in the amounts he said it was here, or indicated it was, and that it got into Maine, and that there was endangering of the health and welfare of people in Maine from sources in New Hampshire."

This would be akin to a statement of a judge in a criminal case to a defendant at the conclusion of the prosecution's case to the following effect: "Now that I have heard the prosecution's case I have pretty much made up my mind that you are guilty but you can tell me your side of the case if you wish to do so, even though it probably will not change my mind."

Preceding this statement by Mr. Stein, also on Page 103 of the transcript of these proceedings, is the following statement by him, and I quote again:

> ". . . The conclusions of the Federal report were that, first, the pollution interfered with the river so as to preclude its development as a public water supply; interfered with general recreation and its development for industrial supplies requiring higher quality than that available; with the propagation of fish and the passage of anadromous fish; with the harvesting of shellfish from the Merrymeeting Bay area; and with the livestock watering situation."

This is indeed a very interesting statement in the background of the way these proceedings have developed thus far. Although I am not here to comment upon the merits of the technical matters involved here, at least one portion of this statement deserves comment at this point. I refer to Mr. Stein's statement that pollution in the Androscoggin River in the State of New Hampshire in some way interfered with the harvesting of shellfish from the Merrymeeting Bay area. According to the technical people with whom I discussed this statement, I am informed that such a statement is just short of being astounding. Such a statement is technically incompatible with the facts. If that be so, then this clearly illustrates the tenuousness of the position taken here by the Secretary of the Department of Health, Education, and Welfare and by the Public Health Service officials. I will refer to the other conclusions stated by Mr. Stein further along in my statement.

Another fact deserves mention at this point with reference to conference procedures or the lack of them. After the proceedings held here on September 24, 1962, representatives of the New Hampshire Water Pollution Commission, the Maine Water Improvement Commission, and the New England Interstate Water Pollution Control Commission, met with a regional representative of the Public Health Service, Mr. Herbert H. Rogers. One of the questions asked of Mr. Rogers at this informal meeting was what conference procedures were there, or stated otherwise, what are the ground rules that apply to a conference, as to how it is held, what is discussed, and so on. Mr. Rogers could not answer this question, for actually there were no rules then in existence to govern the conference procedure. After this meeting, however, Mr. Rogers did furnish to our Water Pollution Commission a seven-page document entitled "Conference Procedures." Obviously, someone in the Public Health Service drafted this document after the question was raised subsequent to September 24, 1962.

I will not bother to read this document into the record, but I will attach this carbon copy of it to my statement and I will incorporate it here by reference. It is marked Exhibit 1.

(The document referred to was not submitted to the reporter.)

The significance of this is simply this: Under the terms of the Federal Water Pollution Control Act only the Secretary of the Department of Health, Education, and Welfare can call a conference, and only the Secretary can prescribe regulations to govern conference procedures. What we have here is a situation where Public Health Service officials have attempted to promulgate regulations, a function reserved only to the Secretary under Section 10(a) of the Federal Water Pollution Control Act. This certainly demonstrates the basic misunderstanding of the Public Health officials of their functions under this Act, and it illustrates an unwarranted attempt by Public Health Service officials to arrogate to themselves authority which no statute has conferred upon them.

Another informal meeting was held on December 10, 1962, at Portsmouth, New Hampshire. Mr. Stein and Mr. Peter Kuh, from the Washington office of the Public Health Service, and Mr. Herbert H. Rogers, a Regional Program Director of the Public Health Service, attended this meeting. I was also present at this meeting, along with the same representatives of Maine, New Hampshire and the New England Interstate Water Pollution Commission who attended the previous meeting.

At this meeting, all parties present requested that the Public Health Service stop any further formal conference procedures and instead discuss the Androscoggin River situation on an informal basis with representatives of the two States concerned. Mr. Stein informed us that only the Secretary could call off the enforcement proceeding.

On January 3, 1963, I wrote to the Secretary of the Department of Health, Education, and Welfare, and after outlining the entire situation in some detail, requested that he call off the conference procedure at this time. In the meantime, the Secretary had called a "conference" for today, February 5, 1963. On January 25, 1963, I received a letter from Assistant Secretary James M. Quigley informing me merely that the conference would go as scheduled. None of the legal points I raised in my letter were answered.

This, then, is the entire factual background leading up to the proceedings here today. I have outlined them in some detail in order to highlight and make clear the legal position which we take here today and which I will now discuss.

Our legal position may be stated briefly as follows: The Secretary has no jurisdiction to start enforcement proceedings against the State of New Hampshire under Section 8 of the Federal Water Pollution Control Act with reference to the Androscoggin River because of the provisions of New Hampshire Revised Statutes Annotated, Chapter 149, entitled "Water Pollution and Disposal of Wastes," the provisions of

Chapter 79 of the 1954 Revised Statutes of Maine dealing with water pollution, and the provisions of the New England Interstate Water Pollution Control Compact, enacted by the legislatures of both Maine and New Hampshire and approved by Congress, in the light of the specific provisions of Sections 1(a), 1(b) and 8(b) of the Federal Water Pollution Control Act, and the legislative intent of Congress expressed in the House Reports which I have previously quoted.

Stated more simply perhaps, our legal position is this: The legislatures of the States of Maine and New Hampshire have reserved to themselves by statute the right to classify according to use all surface waters in their respective States and have set forth a definite procedure for determining such classification. There exists a New England Interstate Water Pollution Control Compact, to which both Maine and New Hampshire belong, and which is dedicated to abate existing pollution. The Federal Water Pollution Control Act specifically states it to be the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution. It also specifically states that nothing in the Act shall be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters of such States. By this enforcement proceeding, the Secretary is attempting to determine what classification according to use the Androscoggin River is to be put in. This the States of Maine and New Hampshire have reserved by statute to themselves. The Secretary is, therefore, without jurisdiction to act in this matter, and his actions in calling this conference are without sanction of law.

The issue is not whether or not pollution exists in the Androscoggin River. The Federal Water Pollution Control Act does not even define the term "pollution." Indeed, it is a term that defies exact definition. Its definition depends upon the frame of reference within which it is used. In some ways all water is polluted. It depends on what criteria are being used since there is no universal definition of the word.

The issue here is whether the Secretary, under the guise of an enforcement proceeding under the Federal Water Pollution Control Act, can come in and tell the New Hampshire legislature how it must classify the Androscoggin River, and to what use such waters may be put by the State of New Hampshire. Such action by the Secretary amounts to a contravention of the clear intent and purpose of the Federal Water Pollution Control Act as specifically expressed therein, and represents an attempt to usurp and preempt rights the New Hampshire legislature has reserved to itself.

I will not go into the provisions of Chapter 149 of the New Hampshire Revised Statutes in great detail, but I will refer briefly to a few of its provisions. Section 3 of our law sets forth the Standards for Classification of Surface Waters of the State of New Hampshire. It provides that there shall be four classes or grades of surface waters: Class A, Class B, Class C and Class D, according to the uses determined for these waters. Section 6 of our law sets forth the procedure to be followed by our Water Pollution Commission in determining the proper classification. After they determine the classification in this way, the law requires them to recommend the classification to the legislature. In the final analysis, it is our State legislature that makes the classification. The Maine legislature enacted a similar law and Maine has a similar statute.

When finally classified under our law and that of Maine, the classification of the Androscoggin River might not include its use as a public water supply. Yet the conclusions stated by Mr. Stein on September 24, 1962, to which I have previously referred, include one which states that pollution in the Androscoggin River in New Hampshire interfered with the river so as to preclude its development as a public water supply in Maine. Under the present circumstances this cannot be a valid conclusion.

I would again emphasize and make clear our disagreement with the Federal position in this matter, namely, that pollution subject to abatement under the provisions of Section 8 of the Federal Water Pollution Control Act, as amended in 1961 (33 U.S.C. 466g) is occurring. Accordingly, it is to be noted in the record that the State of New Hampshire hereby preserves whatever rights and privileges as are available to this State under said statute, and our appearance here today should in no wise be considered as prejudicing our firm intention to retain jurisdiction over the matter of establishing an adequate pollution control program for the Androscoggin River and, for that matter, all other surface waters of the State as defined in RSA 149:1, V.

Our sole purpose is to place certain pertinent information before you which, in our judgment, adequately demonstrates the soundness of the State of New Hampshire's position in opposing the Federal Government's precipitous action in this matter regarding the Androscoggin River. Furthermore, we are strongly convinced that a complete statement such as I am presenting, incorporated in the record, is essential to and will result in a proper understanding on the part of the public, the press, and other interested individuals as concerns the reasonableness of the State of New Hampshire's attitude relative to this Federal enforcement proceeding.

At this time I would again call to the attention of the Chairman that the Declaration of Policy contained in the Federal Act (Section 1, (a), P.L. 660, 84th Congress) specifically provides that it is " . . . the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution, . . ." Paragraph (b) of the same section stipulates that "Nothing in this Act shall be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters of such States." It is difficult, indeed, in the light of such explicit language, to understand or accept the decision on the part of Federal authorities to insist upon a conference proceeding in the light of the expressed desire by the State and interstate agencies involved, that the subject of pollution control in the Androscoggin River watershed be investigated and resolved at lower levels of government in accordance with appropriately enacted State legislation.

I am sure, Mr. Chairman, you are aware that the laws dealing with pollution control in the States of New Hampshire and Maine to which I have previously referred both require that the respective State Legislatures shall adopt appropriate stream classifications before any enforcement activity may be undertaken by the State pollution control agencies. As yet, such classifications have not taken place, although the machinery for so doing has been placed in operation under sponsorship of the New England Interstate Water Pollution Control Commission which, incidentally, provides the proper forum for consideration of interstate water pollution problems in the New England area. It is also apparent from the statutes governing in the two States that decisions with regard to legitimate stream uses flow from whatever systems of stream classifications as are adopted by the respective State legislatures.

In addition, Article VI of the New England Interstate Water Pollution Control Compact, to which I have previously referred, and in which all of the New England States are signatory, provides as follows, and I quote:

> "Each of the signatory states pledges to provide for the abatement of existing pollution and for the control of future pollution of interstate inland and tidal water as described in Article I, and to put and maintain the waters thereof in a satisfactory condition, consistent with the highest classified use of each body of water."

It is evident, therefore, Mr. Chairman, the Compact having had Congressional approval, that the States in the New England area have been empowered to undertake enforcement proceedings relative to interstate pollution problems on a classification-use basis rather than upon some such arbitrary method as is outlined in your report whereby enforcement action is suggested whenever there is damage to any water use, whether or not that particular use is reasonably necessary or economically feasible.

In view of the legislature's interest and responsibilities in regard to the subject of pollution control, it is not surprising, therefore, that as one of its first actions in the current session the General Court adopted a resolution setting forth its position in distinct and direct language whereby the Secretary of Health, Education, and Welfare is respectfully requested to honor the intent of the Federal Water Pollution Control Act by giving the State of New Hampshire a reasonable opportunity to perform its role and function in the control of pollution in the Androscoggin River watershed. At this time I would like to read the Resolution into the record inasmuch as it summarizes the New Hampshire position in very specific terms. I quote the Resolution:

> "Whereas, the Department of Health, Education and Welfare has announced its intention to proceed with enforcement action under the Federal Water Pollution Control Act in the Androscoggin River Watershed, an interstate stream between the states of New Hampshire and Maine, and
>
> "Whereas, the paper industry in particular has invested heavily for pollution control measures in this watershed under a series of court decrees by the Supreme Judicial Court of Equity for Androscoggin County which has resulted in substantial improvement in stream quality and the industry is continuing to expend money for said purposes as rapidly as financial capacity allows, and
>
> "Whereas, the Legislatures of the two adjoining states by statute have reserved the right to adopt systems of stream classifications which provide the legal framework for enforcement action as well as the basis for determining the lawful uses for said waters, and
>
> "Whereas, the respective water pollution control agencies of the two affected states are fully competent, prepared and have a coordinated plan for the conduct of such additional investigations, studies and surveys as are required in order that both State Legislatures may simultaneously adopt appropriate stream classifications for the Androscoggin River Watershed, and
>
> "Whereas, the states of New Hampshire and Maine, along with

"the other New England states and the state of New York, are joined in the New England Interstate Water Pollution Control Compact (approved by Congress in 1947), under which all of the states are pledged to abate pollution of interstate waters within the Compact area, and

"Whereas, the declared policy of the Federal Water Pollution Control Act is to recognize, preserve and protect the primary responsibilities and rights of state and interstate agencies to prevent and control water pollution,

"Now, Therefore, be it Resolved by the Senate, the House of Representatives concurring, that the General Court of the State of New Hampshire having due regard for the protection of the present and future economic welfare of the area, is convinced that the objective of an overall comprehensive pollution control program for the Androscoggin River Valley can be best achieved by local, state and interstate authorities free from federal intervention, and

"Be it Further Resolved that the General Court of the State of New Hampshire strongly urges that the Secretary of Health, Education and Welfare in the operation of the federal program, adhere to the express intent of the Federal Water Pollution Control Act, namely, that the primary responsibility for the establishment of adequate water pollution control programs remain with the duly authorized state and interstate agencies; and further, whenever in his judgment satisfactory progress towards pollution control is not being made, to give notice thereof to the state and interstate agencies involved before undertaking any action whatever under the Federal Water Pollution Control Act, and

"Be it Further Resolved that the members of the New Hampshire delegation in the Congress of the United States, be requested to assist in every way possible in the State of New Hampshire's effort to retain jurisdiction over the Pollution Control Program for its portion of the Androscoggin River Watershed, and

"Be it Further Resolved that the Secretary of State be instructed to transmit a copy of this Resolution to the Secretary of Health, Education and Welfare and to each member of the New Hampshire delegation in the Congress of the United States."

Whether intended or not, the calling of a conference by Federal authority without benefit of a request from or consultation with either of the affected States, inevitably results in a loss of confidence on the part of the general public in the integrity of pollution control efforts at the State level. That this is so cannot be disputed, as witness the wake of unfavorable publicity which was generated both prior and subsequent to the September 24, 1962 Session scheduled by Secretary Celebrezze for Portland, Maine. The damage thus produced will take months and even years to repair, which it can hardly be held, constitutes progress or cooperation in the common objective of establishing adequate programs for pollution control in interstate waters. In this respect, it is heartening to us in New England to observe that States in other areas of the nation are also beginning to voice their distress at this problem of Federal intervention which, hopefully, may have the result of bringing about a more discriminating application of Federal enforcement provisions by the Secretary of the Department of Health, Education, and Welfare.

In any event, the State of New Hampshire does not need to apologize for its water pollution control program. The same holds true for the State of Maine, but its officials are fully capable of stating their own case without benefit of any support from me. Since 1947, when the control statute was enacted -- a short time indeed in measuring progress in a field where concepts and practices long since established and publicly accepted must be completely reversed -- somewhat better than 65 percent of the surface waters of the State have been classified and control programs thereby instituted. Some 23 pollution control projects have been built and placed in operation or renovated during this period and there are 17 others in the process of construction. As of the present time we have 37 other communities actively planning similar projects which will be placed under construction in the immediate future. In the course of these operations all funds available to the State under the Construction Grants section of the Federal Act have been fully utilized. As a matter of fact, the Water Pollution Commission has found it necessary to exercise discretion and judgment in the allocation of such monies in order that they might be expended in those areas and in those communities of the State where the greatest good in terms of critical pollution problems solved, would be obtained. Another way of saying the same thing is that there is not sufficient money for all communities to act at the one given time and the Commission, therefore, has to schedule its control efforts in accordance with the amounts of funds available. Thus it can be fairly stated that the Federal Government has established the pace of the "clean-up" program, for experience conclusively demonstrates that communities will not proceed without the benefit of financial assistance, nor do we believe that they can be reasonably expected to do otherwise.

Accordingly, it would not be any exaggeration to state, in view of the financial resources available, that the scheduling of an emergency pollution control program for the Androscoggin River within the immediate future could only result in an extremely serious dislocation and disruption of the plan for pollution control within the State of New Hampshire.

Returning to the matter of assistance, I would point out that New Hampshire has not been unmindful of its obligations in the area of financial help to communities and industries faced with the burden of installing pollution control facilities. At the present time we have a 20 percent grant system in effect as a form of encouragement to local governments engaged in essential activity. As a further inducement, a State guarantee of municipal bonds issued for pollution control projects is available to municipalities affected by the program -- and industries by legislative Act are allowed tax exemptions for a period of twenty-five years on facilities designed to control air or water pollution. As recently as 1961 the legislature approved statutory changes whereby municipalities may finance the construction of treatment works for industry which, of course, has the important effect of freeing industry from making heavy capital investments in such nonproductive facilities.

At this juncture we would call to your attention that the matter of overall program scheduling by the pollution control agencies of the two States has been agreed upon insofar as the Androscoggin River watershed is concerned. In so doing, it was understood that this watershed should receive a "lower action" priority for the simple but very compelling reason that suitable controls have existed here since 1947, when the Supreme Court of Equity for Androscoggin County in the State of Maine established jurisdiction over the stream. To us it was and still is apparent that the Court examined the question of damages and concluded that elimination of nuisance effects resulting from pollution in the river offered a reasonable solution to the problem then existing.

Under the guidance of the Court-appointed River Master, notable improvement in river conditions has been achieved and further progress is being made, all of which has been accomplished as a result of substantial investments in pollution control facilities by industry.

With specific reference to the reduction of industrial wastes being discharged to the Androscoggin River in the Berlin area, we can point to several important changes which have taken place since 1947. In that year the Brown Company in cooperation with the International and Oxford paper companies installed a lagoon in Jay, Maine, at a cost of $150,000. In 1951 and '53, the Brown Company installed two lagoons at Berlin which have operated successfully and these involved a total cost of $328,000. In 1958 the company placed its new magnesium base sulfite recovery plant in operation, which resulted in a very substantial reduction in sulfite waste liquor being discharged to the stream. This installation was designed to evaporate and burn approximately 90 percent of the waste liquors and as such constituted a pioneer process involving the disposal of wastes from hardwoods. The investment required for these facilities amounted to $5,445,007.

We are not proposing that the task of pollution control in the Androscoggin River is complete. As a matter of fact, communities in New Hampshire within this watershed are now preparing to sponsor engineering investigations as to their pollution control needs. This, coupled with similar plans by industries for future work (such as the additional Kraft evaporators to be installed by Brown Company at a cost in excess of $300,000, the same to be placed in operation on or about March 1, 1963), should be allowed to take place under State and interstate jurisdiction.

The State of New Hampshire through its Water Pollution Commission has all of the necessary competence in terms of professional personnel and the other resources required, to complete any and all investigations essential to the development of appropriate stream classification recommendations for the legislature. In our conversations with counterpart authorities in the State of Maine, it is evident that the same degree of skills and competence is available to do the job for that State.

As stated before, this entire matter is on the agenda of the New England Interstate Water Pollution Control Commission and we much prefer to proceed in an orderly fashion at these local levels of government. We are not of the opinion that any discussion of technicalities is desirable or indicated but rather the decision to be made here concerns the vital issue as to whether the State and interstate agencies operating under adequate statutory authority are to be allowed an opportunity to resolve the problem in an orderly manner without Federal encroachment. Accordingly, at this time we would ask that the Department of Health, Education, and Welfare recognize the primary jurisdiction of the States by withdrawing its enforcement action, and meanwhile we would assure you of our sincere interest to cooperate by keeping the Federal agency informed at all times as to progress being made.

Finally, in order that there may be no misunderstanding whatever concerning our plans with regard to the Androscoggin River Basin and to eliminate any uncertainty as to the correctness of the position being maintained by the State and interstate agencies involved here today, I will state that the commissions of New Hampshire and Maine have agreed under the cooperative provisions of the New England Interstate Water Pollution Control Compact to submit classification recommendations to the 1967 biennial sessions of their respective State legislatures.

One further matter deserves comment. It is the position of the Governor of the State of New Hampshire. So there may be no misunderstanding of what his position in this matter is, let me quote to you first of all from the Congressional Record of January 31, 1963, where Congressman James C. Cleveland of the State of New Hampshire made the following statement, authorized by the Governor of the State of New Hampshire:

"Mr. Speaker" --
I quote from Page 512, in the third column --

"Mr. speaker, I talked with Governor King on the telephone this morning and he authorized me to quote him as follows, and I quote:

"'At this time we would ask that the Department of Health, Education, and Welfare recognize the primary jurisdiction of the State by withdrawing its enforcement action and, meanwhile we would assure you of our sincere interest to cooperate by keeping the "Federal agency informed at all times as to progress being made.'"

I am authorized by Governor King to submit a letter to the Chairman of this onference which further expresses his position in this matter. The letter is dated ebruary 4, 1963, and it is addressed to Mr. Murray Stein, Chief, Enforcement Branch, ivision of Water Supply and Pollution Control, U. S. Public Health Service, Washington 5, D. C.

"Dear Mr. Stein:

"I have been notified that you will serve as Chairman of the Conference called by Mr. Anthony J. Celebrezze, Secretary, Department of Health, Education and Welfare, for Tuesday, February 5, 1963 at Portland, Maine, with reference to the Androscoggin River.

"Since this proceeding constitutes the initial step in the enforcement measures provided for under section 8 of the Federal Water Pollution Control Act * * * I felt it incumbent upon me to go into this matter in great detail with the Water Pollution Commission and the Office of the Attorney General of the State of New Hampshire in order to gain a full and complete understanding of all of the various aspects involved in this situation.

"After a careful review of all information available on the subject, I am convinced that the state and interstate agencies are entitled to a reasonable opportunity to resolve the pollution control needs for the Androscoggin River over and above those measures already in effect as a result of decisions made by the Honorable Supreme Judicial Court of Equity for Androscoggin County in the State of Maine.

"Obviously, orderly and equitable procedure for both States requires legislative review and the enactment of appropriate stream classifications in this watershed by both States so that upon this basis adequate enforcement efforts may be assured.

"Accordingly, I take this means of advising you of my complete and unqualified support of the statement to be presented at the

"Conference by Assistant Attorney General Alexander J. Kalinski on behalf of the State of New Hampshire. For purposes of the record, I would also bring to your attention my concurrence in the policy expressions contained in the Resolution adopted recently by the 1963 Session of the General Court, a copy of which was forwarded to Secretary Celebrezze under date of January 24, 1963.

"In conclusion, I would assure you of our sincere intention to continue to cooperate in all areas of mutual interest and responsibility; however, in the current instance it is my belief that a harmonious settlement can best be achieved by primary action at State and interstate levels of government."

Thank you, Mr. Stein.

May I offer you the copy of the matters I have read into the record?

MR. STEIN: Are there any comments from the representatives of the interstate agency, or any questions, of Mr. Kalinski? If you wish, you can comment now or wait until you make your statement.

MR. BLAIR: Not at this time. I think it is appropriate we hear from the State of Maine now.

MR. STEIN: If they want to comment now, they can.

MR. WEST: I am George West, Deputy Attorney General. As far as the comments of Maine are concerned, I will leave it up to the Chairman as to whether you wish to have my statement now or at a later time.

MR. STEIN: We took Mr. Kalinski out of order, and I think we would just as soon call on you in order, if you wish.

MR. WEST: Certainly.

FURTHER STATEMENT
BY MR. STEIN

MR. STEIN: Thank you, Mr. West.

Before we call on Mr. Rogers, it is getting a little late and I would like to say something not in rebuttal, but just in commenting on Mr. Kalinski's statement. I would like again to take this opportunity to congratulate Mr. Kalinski for the courtesy he has shown in the expedition of the conference by giving hectographic copies of his statement to representatives of Maine, New Hampshire and the interstate agency so that they could follow it, and help the conference move along, even though he didn't see fit to give any to the reporter.

MR. KALINSKI: May I note on the record my exception to the sarcastic comments?

MR. STEIN: It is noted on the record.

I think some of the details may be covered, but we don't expect to get into a long discussion of this. After all, we are really here to discuss the occurrence of pollution of interstate or navigable waters subject to abatement under the Act, and the adequacy of measures taken toward abatement of pollution; and, the nature of delays, if any, being encountered in the abatement of such pollution.

I don't know that we are the appropriate forum here to make any determination on legal validity of any action. However, I think it may be obvious to those who know the Federal Government that perhaps Mr. Kalinski and the attorneys -- and we do have quite a few of them in Washington -- may be looking at our statute through different ends of the telescope.

One, I may point out there is nothing in the Act which talks about the Public Health Service. The statute vests authority in the Secretary of Health, Education, and Welfare. The Secretary has not -- the Secretary has not delegated his enforcement functions to the Public Health Service, or anyone in the Public Health Service. When I am here as chairman of a conference I am here as chairman specifically designated by the Secretary as his representative. That is, I am in no way, or by any manner or means, a Public Health Service official working as a Public Health Service official necessarily, excepting that I am housed there. So I have been given this delegation by the Secretary for the purpose of this conference, and I am acting in his name, and in that capacity.

Another comment is, I think, while hundreds of Federal attorneys in our Department and the Department of Justice have scrutinized our Act over the years, no one has come up with the conclusion that an enforcement action in any way, manner or means is an action against the States, except possibly in a rare case where pollution from a State-owned institution may be causing pollution subject to abatement in interstate waters.

Another point I would like to comment on, and I would just leave it to the group, is with reference to the first portion of this conference, as to whether they believe that the Congress in passing this Act expected that the whole Act could be made nugatory by States and interstate agencies not wanting to participate, and, of course, acknowledging it, thus giving them a veto.

This question of rules and regulations, as you can appreciate, has been very, very, very carefully gone over through the years by attorneys in Washington. The conference and the hearing, as a matter of fact, are not subject to the Administrative Procedure Act. The Secretary has placed, as far as I know, the regulations in effect herein as a matter of information and courtesy. The idea of the conference was not and never was intended to be an adversary proceeding. The Secretary decided to leave the maximum amount of flexibility, and, generally speaking, our conference rules, because people are reasonable, have followed a fairly uniform pattern and have been established by the conferees usually meeting the night before, or the day before a conference, or the morning before the conference. It is pointed out repeatedly that we have tried to arrange such a meeting with the representatives of the States and interstate agencies here, but to no avail.

The other question coming up is on the classification of waters.

Again I would like possibly just to throw this thought out for consideration: I don't know that any State legislature in the country does not reserve to itself the right to classify waters. In New England the State legislatures do this themselves. In many of the States the State legislatures have vested this authority in an independent agency. However, in all the States the legislatures can, if they wish, by legislative act, get together or pass a bill classifying waters within that State. A classification has not taken place on the Androscoggin. At least, coming from Washington, I am not the one to anticipate what any legislature or congress, however constituted, might do. But that is certainly their right, as it is the right of any legislature of any State.

In those States where the legislature vested that authority in an administrative agency, it still makes no difference. It does not change the basic Federal-State relationships. I think the Congress had well in mind the procedures in New England when this Act was passed, because you had legislative classification. I think the Congress had well in mind the practice of any States in vesting classification in administrative agencies when they did this. I didn't think they figured certain parts of the country would be exempt.

In dealing with the resolution of the Speaker of the House of Representatives and the Senate of the State of New Hampshire, this resolution which was read into the record by Mr. Kalinski was mailed to the Secretary. The Secretary has replied to the Honorable Stewart Lamprey, Speaker of the House of Representatives of the State of New Hampshire, and the Honorable Philip S. Dunlap, President of the Senate of the State of New Hampshire. He signed this letter on Saturday and it is dated February 2, 1963. Both letters are identical.

> "This is to acknowledge receipt of the Concurrent Resolution adopted by the legislature of the state of New Hampshire concerning the current consideration being given by our Department to the question of any interstate pollution that may be occurring along the Androscoggin River. The Federal Water Pollution Control Law clearly recognizes that the basic responsibility for water pollution control rests with the states and interstate agencies. However, the law also imposes upon me, as Secretary of the Department of Health, Education, and Welfare, the obligation to call a conference of the interested state and interstate agencies when there is evidence of pollution occurring in one state that is having adverse effects on the health or welfare of persons in another state. Evidence of such interstate pollution caused me to call a conference

for the Androscoggin River.

"The purpose of such a conference is to bring together all the interested parties, public and private, to review the situation and to make a determination of the nature and extent of the pollution, if any, and to agree on what corrective steps might be taken. Once such agreement is reached the matter of supervising the corrective action is invariably handled by the state agencies rather than by the Federal government.

"We share the interest of the members of the General Court of New Hampshire in protecting the present and future economic welfare of the "Androscoggin River Valley and you can be assured that we will work with local, state and interstate officials to accomplish this goal.

"Sincerely,

Anthony J. Celebrezze
Secretary"

I would like to add one more comment on the statement made about quotes from the transcript of the last conference.

I think, as our presence here no doubt will show today, that shows we came to no conclusions at the end of the last conference. All we were doing was repeating or attempting to summarize what our investigator found, or our investigators found, and placed in their reports. We pointed out in that transcript we did not want to come to any unilateral conclusions and proposed to give the States at least sixty days to look over this report and come back here today. As a matter of fact, that is why we are here today. Because we did not -- and I repeat -- we did not arrive at any conclusions several months ago.

With that, I think we might take a break until twelve o-clock, and then reconvene.

MR. KALINSKI: Excuse me, Mr. Stein.

If there are any members of the press in the room who wish a copy of the statement I have made, I have several copies extra available here, and if you will come up I will be glad to give them to you.

(Whereupon a recess was had.)

MR. STEIN: May we reconvene?

We tried to ascertain the expected time of adjournment so we could make a determination of whether we could go to lunch or not. I think we are in one of these twilight zones where it may run anywhere between an hour and two hours. Two hours, I expect, is going to be a little too long unless I have an overwhelming sentiment here that you want to go right through and you don't care if you don't eat until two o'clock.

(A chorus of voices: "Lunch.")

MR. STEIN: Okay. We will adjourn until two-thirty then.

A VOICE FROM THE FLOOR: (The person identified as "A Voice From The Floor" in the next three statements refused to identify himself for the record.) If you are going to do something, do it on a democratic basis and take a vote on it, please.

MR. STEIN: We will take a vote. How many people want to go right through?

A VOICE FROM THE FLOOR: I think that is the trouble with the whole hearing. That is the objection. There is no democracy.

MR. STEIN: Oh, I think there is democracy. You see, you had your say and we are going to follow it.

A VOICE FROM THE FLOOR: You have to demand it.

MR. STEIN: No, that is the essence of democracy, sir.

How many people want to go through and break for lunch? How many people want to go through? I take it the majority want to break for lunch.

You know, I have watched Sam Rayburn over the years and I can ascertain very readily the sense of the House.

Mr. Rogers, Would you?

STATEMENT OF HERBERT H. ROGERS,
REGIONAL PROGRAM DIRECTOR, WATER
SUPPLY AND POLLUTION CONTROL

MR. ROGERS: Herbert Rogers, Regional Office, Public Health Service, in Boston.

I think since several points have been raised here concerning a prior conference, and also some questions were raised here on proceedings, that I would at this time like to introduce into the record the official transcript of the conference that was held -- the first portion of this conference that was held on September 24, 1962, here. (See Supplement, pages 79 through 166)

MR. KALINSKI: Excuse me, Mr. Chairman. May the record show that the State of New Hampshire objects to designating the proceedings held September 24, 1962, as a conference? Just so it is clear we do not concede that it was a conference.

MR. STEIN: The record will show that.

Will you proceed, Mr. Rogers?

MR. ROGERS: As I say, the other questions that have been raised here are on some legal proceedings, so we have asked Mr. Peter Kuh if he will come up and actually interpret some of these legal proceedings. Peter Kuh is from the Enforcement Branch in Washington.

STATEMENT OF PETER KUH, ENFORCEMENT BRANCH, DIVISION OF WATER SUPPLY AND POLLUTION CONTROL, PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, WASHINGTON, D. C.

MR. KUH: Thank you.

Mr. Chairman, may the record show I am giving a copy of my statement to the court reporter, although I intend to depart from it in some substantial respects.

My name is Peter Kuh. I am with the Enforcement Branch, as Mr. Rogers indicated, of the Department of Health, Education, and Welfare, in Washington.

One point I would like to make clear at the out-set. Many of the propositions which Mr. Kalinski stated I can accept, or I can accept as apparently grounded on misinformation. His basic position, it seems to me, that the State of New Hampshire would have a right to classify the Androscoggin River, without regard to water uses, ultimately to make a grossly polluted stream out of it, without regard to a Federal interest in navigable waters and in interstate waters, is a proposition I do not accept.

MR. KALINSKI: Mr. Chairman, I don't wish to interrupt.

MR. KUH: I would also like --

MR. STEIN: Could this wait until he has completed with the statement?

MR. KALINSKI: He is not only misstating something I have stated myself --

MR. STEIN: Mr. Kalinski, could you please wait? You will be given a full opportunity after he finishes his statement.

MR. KALINSKI: I object to his making a misstatement of fact, and wish the record to show that.

MR. STEIN: All right. It is noted on the record. Thank you.

MR. KUH: I would like also, in the interests of completeness of the record, to read in the response of the Assistant Secretary of Health, Education, and Welfare, to Mr. Kalinski's letter of January 3. This is dated January 23, 1963.

"Dear Mr. Kalinski:

> "This is in response to your letter to the Secretary concerning the Androscoggin conference called under the provisions of the Federal Water Pollution Control Act.
>
> "As you know, a further conference on the Androscoggin has been called for February 5th. The Secretary of Health, Education, and Welfare is required to call such a conference when he has reason to believe interstate pollution subject to abatement under the Act is occurring. A report prepared by the Public Health Service which indicates such pollution exists in the Androscoggin River has been made available to officials of the New Hampshire Water Pollution Control Commission.

"The points raised by you might be appropriate for further discussion at the conference, however, they do not relieve us from our statutory duty. More than 300 cities and 300 industries have been covered by past conferences. Conference procedures authorized by the Federal Act have proved to be an effective method of evaluating pollution problems while affording full protection to Federal, State and local interests. There seems to be every reason this should obtain in the Androscoggin River situation.

"Sincerely,

James M. Quigley
Assistant Secretary"

I would like also to call attention to an apparent mistake on the part of the Assistant Attorney General of New Hampshire in basing the legislative history of the Federal Water Pollution Control Act on a House report. The final report on which the actual Act and its amendments in 1961 were adopted was a conference report, and neither the House nor the Senate version.

The House report, I will grant, is an interesting part of the legislative history, but was not the final document on which the action was taken by the national Congress.

Mr. Kalinski also mentioned the fact of his failure to receive notification at various stages of this proceeding. The Act imposes a duty on the Department of Health, Education, and Welfare, on Mr. Quigley as an Assistant Secretary, on Mr. Stein and myself as employees of the Department, to furnish notifications, formal or informal, to the official state water pollution control agencies. This, as my more formal statement will indicate, has been consistently done throughout the period of this proceeding. If they failed to inform their Attorney General, this is unquestionably an unfortunate situation of failure of communication within the State administration.

Another matter I would like to mention is, I believe that the Assistant Attorney General will find no reference in the report of proceedings of the first part of this conference to any New Hampshire pollution affecting the waters of Merrymeeting Bay.

The Assistant Attorney General of the State of New Hampshire has raised certain positions which we intend to discuss. Specifically, however, a brief view should first be taken of this conference and the perspective within which it is being held.

The Federal Water Pollution Control Act provides among other things that,

> "The Secretary (of Health, Education, and Welfare) shall also call such a conference whenever, on the basis of reports, surveys or studies, he has reason to believe that any pollution referred to in subsection (a) and endangering the health or welfare of persons in a State other than that in which the discharge or discharges originate is occurring."

Section (a) has reference to abatement of pollution of interstate or navigable waters in or adjacent to any State or States which endangers the health or welfare of any persons.

The report of Mr. Sidio of the Taft Sanitary Engineering Center, which is dated August 1962, which was delivered to the agencies which have been formally notified -- the Maine and New Hampshire agencies, and the interstate agency -- early in September of 1962, a copy of which I now hold in my hand, was called to the attention of the Secretary of Health, Education, and Welfare, and under the statute he had an absolute duty to call such a conference, and he has done so.

We suggest that you bear in mind the fact that this is a conference. It is not an adversary proceeding wherein you as chairman, Mr. Stein, can render a judgment and findings of guilt or innocence as in a court of law.

The conference technique is one designed to secure, if possible, a clear statement of the condition of water quality and the causes of that condition. Statements are presented at the invitation of the conferees and the Department. Those who present such statements are not subject to cross examination, nor are they restricted by the formal rules of evidence which bind our courts, or the slightly less formal rules which impose necessary restrictions on our more formal administrative hearings.

The chairman, I believe, in his opening statement and in his quotation from Assistant Secretary Quigley, adequately and fully pointed out the purpose of the conference proceeding.

This is the twentieth conference which has been held under the Federal Water Pollution Control Act. Many of these, as a matter of fact, I believe, eight out of the twenty, have followed the same procedures as that here, that is, they have been called by the Secretary of Health, Education, and Welfare, on the basis of reports, studies or surveys, rather than on the basis of an invitation from a specific State. Some 300 industries and 300 municipalities have been involved in the prior nineteen proceedings. To our knowledge, no industry has been closed, no municipality has been forced to the point of serious financial embarrassment as a result of our action. It is not the intention of anyone here to make this an exception to the generally cooperative State-Federal relationship which has existed with regard to efforts to abate water pollution under the Federal Water Pollution Control Act.

It does not appear appropriate to engage in a semantic discussion of one word, such as "enforcement," in a proceeding whose objective is not argument about words, is not a technical study of language, but is to arrive at a satisfactory and agreeable method of pollution abatement. From our view, and based on a seven-year history under the Federal Water Pollution Control Act to which I have referred earlier, the word to stress is "conference."

May we repeat that in the view of the Department of Health, Education, and Welfare, and, I am sure, in the minds of the conferees, this is just what it purports to be -- a conference in which, through the traditional democratic American process of discussion, an approach to a conclusion acceptable to all conferees can be reached.

May we at the outset make clear that so far as this proceeding is concerned, the statutory requirements of the Federal statute have been met in every detail. Notice was mailed of this meeting, the meeting being held here on February 5, on December 31, 1962. Prior to delivery to the post office for mailing of these notices

I personally informed Mr. Healy of the New Hampshire Commission, Mr. Macdonald of the Maine Commission, and Mr. Blair, the Chairman of the New England Commission, that the notice would be mailed. I spoke myself over the telephone to each of you.

It seems to me to be of little value to have the current conferees take up extended time with technical questions involving the September 24, 1962, conference. They have been raised in a letter from the Attorney General's office dated January 3, 1963, the day after each of the agencies invited to be conferees received their notice of the current proceeding. They seem to be rather a part of history than germane to any present issue.

However, on the general question of advance notification to the State agencies, I would like to call to the conferees' attention that as early as December 1961, when our Department was preparing a water quality report for the Corps of Engineers on the Androscoggin, Mr. Lester Klashman, then our Regional Program Director in New York, informed both State water pollution control agencies here involved that the report might well result in enforcement proceedings under the Federal Act. This was fourteen months' notice prior to the present proceeding. I do not doubt that there is a possibility that the Assistant Attorney General of New Hampshire may not have been informed of this conversation, but I have little doubt, particularly since it was contemporaneously recorded in a memorandum of Mr. Klashman, that it took place.

A more precise chronology indicates that on August 9, 1962, Dr. H. C. Huntley, Regional Health Director, and Mr. Frank Tetzlaff, Associate Regional Health Director of the Department of Health, Education, and Welfare's Regional Office in Boston, Massachusetts, were informed that the report of the Sanitary Engineering Center might indicate danger to welfare such that enforcement proceedings might be necessary. Following this conversation, on August 10, 1962, Mr. Tetzlaff advised Mr. Healy of the New Hampshire Commission, at Mr. Healy's office in Concord, of the possibility of an enforcement conference. On August 21, 1962, over a month before the September conference, Mr. Tetzlaff and Mr. Rogers met with Mr. Macdonald of the Maine Water Improvement Commission and discussed the possibility of a forthcoming conference.

On August 22, 1962, Dr. Huntley similarly informed Dr. Dean Fisher, Secretary of the Maine Commission, and Mr. Joseph Knox, Secretary of the New England Interstate Water Pollution Control Commission. On August 27, 1962, Mr. Metcalf, of Mr. Healy's office, was informed by Mr. Rogers that he intended to contact local agencies, industries, and individuals with reference to the forthcoming enforcement conference.

On August 21, 1962, Mr. Rogers met with Mr. Madonald of the Maine Water Improvement Commission and discussed preparation for the forthcoming conference and offered assistance in acquainting Mr. Macdonald with the Department of Health, Education, and Welfare conference procedures. A similar meeting was held by Mr. Macdonald and Mr. Rogers in Augusta, Maine, on August 28, 1962.

I should like also to state that prior to that conference Mr. Rogers, I believe both in writing and verbally -- and also prior to this one, I know, both in writing and verbally -- informed both State agencies and the interstate agency of our willingness either with participation of personnel from the Washington office or without, to sit down and lay out exactly the sort of ground rules that the Assistant Attorney General of New Hampshire stated were desirable. I think it was indeed unfortunate that no effort was made by them to avail themselves of this opportunity.

Subsequent to the September 24th conference, on November 9, 1962, Mr. Rogers met with representatives of the interstate and both State agencies at Portsmouth, New Hampshire, and discussed the conference procedures with them. Since many questions came up which Mr. Rogers felt could be better determined by representatives from Washington, Mr. Rogers, Mr. Stein and I met with representatives of all three agencies in Portsmouth, New Hampshire, on December 10, 1962, and discussed the problems involved and the approaches to the conference procedure for several hours.

Allegations as to motives, whether proper or of some other variety, are not within our competence to meet without specific references to these purported motivations. It is important for us to realize that what we are doing here is carrying out the statutory mandate of the Federal Act.

It is true that the Federal Water Pollution Control Act states that State and interstate action shall be encouraged and shall not be displaced by Federal enforcement action. The Act also places certain affirmative responsibilities on the Secretary. One of these is to call a conference under circumstances such as exist here. Such a conference does not and has not in the past, in the twenty proceedings to which I referred earlier, displaced State actions, but it should and it has encouraged and assisted State programs.

That this Department acted both within the spirit and the letter of the Act is borne out fully by the facts. For some thirty years this river has been studied by Government and private persons with a view to correcting its polluted and unsatisfactory condition. While some improvement has resulted, the river is still unsuitable for many legitimate water uses. This is a matter of public knowledge, as evidenced by testimony at public hearings and articles appearing in widely read periodicals. The New Hampshire Commission has furnished this Department with scientific data which supports this belief. That the Commission was fully aware of this Department's position is evidenced by the fact of its failure to object to the contents of the Department's summary report dated September 1961 on the condition of the river, which was sent to the Commission for review and comment.

To put the Department's action in proper perspective, one must consider the basic fact that Section 8(e) of the Act establishes procedures for the implementation of Section 8(b), where it requires a conference, the purpose of which is to encourage, assist and support State and interstate action to abate pollution.

The organic load discharged to the river from Berlin, New Hampshire, to a point below the Auburn-Lewiston area in Maine during the summer of 1961, as stated in Mr. Sidio's report, to which no specific objection has been raised, was equivalent to that of a population of 1,475,000 persons. Ninety-four percent of this was industrial. That discharged in New Hampshire had a population equivalent of 908,500 persons. The controls placed on industry have been aimed at the prevention of a public nuisance while continuing to use the river as a means of disposing of industrial wastes and municipal sewage. "Public nuisance" has been considered only in the light of noxious odors, floating gas-lifted sludges, corroded metals and discolored paint. The pollution assimilation capacity of the river is so utilized that quality is maintained at a level that will just prevent the development of obnoxious conditions.

The water, as it crosses the State line, as indicated in the Sidio report and its supplement, which uses 1962 data, is of a quality unsuitable for:

1. Development as a public water supply;
2. General recreation;
3. Development as industrial supplies requiring higher quality water than that available;
4. Propagation of fish;
5. Stock watering.

The Mayor of Lewiston, Maine, in December 1960, made the following statement at the public hearing held by the United States Army Corps of Engineers on the Androscoggin River Basin:

> "For a long time now, we have been annoyed by a filthy and foul river running between our cities of Lewiston and Auburn. The existence of such conditions as are found in this river has tragic consequences on the social and economic life of the entire area. Pollution, blight and their by-products are barriers to the growth of any community, notoriety of the Androscoggin River has damaged the reputation of our city. There is a lack of water for the use of industry in our community. This imperils the operations of our present industries and hampers the expansion we must plan if we are to meet the demands of the future."

Some of the scientific data supporting the position taken at the September conference by the Department was furnished the Department by the New Hampshire Commission. It was as of 1961. Some information was obtained by personal observations of the river during the summer of 1962. Some information in the supporting data was obtained from the offices of the Attorney General of Maine.

1962 figures have been secured from the State officials, and I believe will be made part of the record in a subsequent statement. I believe that these figures will show that the figures for discharges from Berlin to Auburn-Lewiston during the summer months of 1962 show an average organic load of 1,277,900 persons population equivalent, with New Hampshire contributing 672,500 population equivalent. I believe they will also show that this is a 13 percent reduction over the same period in 1961. However, for August 1962 I believe they will show that the load was 1,439,900 population equivalent compared against a 1961 average of 1,475,000 persons.

The foul condition of this river is public knowledge. Dr. Walter O. Lawrence testified at the United States Army Corps of Engineers public hearing held on December 14, 1960, at Lewiston, Maine, that while the pollutional effects of discharges from the Brown, Oxford and International Pulp and Paper Companies, located in both New Hampshire and Maine, had been reduced, they had not been eliminated or reduced to a degree of harmlessness.

Mr. E. Sherman Chase of Metcalf and Eddy, on October 10, 1960, stated at the American Society of Civil Engineers meeting in Boston, no stream in the United States, to his knowledge, has had so long a record of observations and analyses under private auspices as the Androscoggin in Maine. The river, he said, remains a polluted stream, but not a gross public nuisance.

In the Congressional Record of July 1, 1959, an editorial from the Maine Outdoorsman and Conservationist was inserted, which stated:

"STINKS IN PORTLAND, TOO

> "When Portland residents began to get a whiff of what foul air smells like, and also an example of how contaminated air can change the the color of the paint on a house, they rose in righteous indignation and demanded that something be done to remove this unpleasant situation. They're asking about Federal funds to alleviate such a nuisance.
>
> "Well, the good folks who live along the Androscoggin River, as well as numerous other highly polluted waters in our State of Maine, can certainly sympathize with their Portland neighbors. No; it isn't a pleasant odor. Incidentally, been up Rumford way lately?
>
> "Sooner or later, the people are going to become sufficiently nauseated with the whole stinking mess they'll start demanding that the legislators, who so far are much too complacent about the growing pollution problem, stop listening to the industrial lobbyists and start listening to the people who cast the votes to elect them to office.
>
> "Some day, perhaps, some of these elected public servants will start listening to the many, instead of the few."

It is indicated that the pollution of the Androscoggin is already adequately controlled by State agencies and State courts. If this is the case, what better opportunity can be afforded to clarify this situation and to make it publicly apparent, than this conference? Mr. Sidio's supplementary report, furnished to the conferees or the agencies they represent, three weeks prior to this conference, states:

> "Pollution of the Androscoggin River at the New Hampshire-Maine State line, subject to abatement under the Federal Water Pollution Control Act, continues to exist."

If this statement is erroneous, this is the proper forum to point it out.

It is to be regretted, and this regret is sincere on our part, that the New Hampshire State legislature saw fit to adopt a resolution questioning the advisability of this conference without having consulted the Department which initiated the conference, and without apparently being correctly and factually informed of the situation. We feel certain that were the factors which I have called to the attention of the conference presented to the General Court of New Hampshire, it would have adopted a view more in accord with the facts and more in accord with an orderly and cooperative development of Federal-State relationships in the field of water pollution control.

Let us conclude by stating that we are now all gathered at a conference at which we can all express our views dispassionately and with the end in mind of improving the quality of the waters of the Androscoggin, if that is necessary, rather than with an attitude of hostility and suspicion. Let us look toward a river suitable for industrial and municipal use, recreation and fishing development, and general economic benefits to the States of Maine, New Hampshire, and New England as a whole. Toward this result, rather than toward dispute and discord, let us here bend our efforts.

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Thank you.

MR. STEIN: Are there any comments or statements?

MR. KALINSKI: May I note once again, if you will, so there will be no misunderstanding about it, that the State of New Hampshire wishes to make it clear that there are no conferees from the State of New Hampshire participating here today in these proceedings. May we say we do not concede that the proceedings today are a conference; and, secondly, may we note for the record, bearing in mind that perhaps these proceedings may be challenged in court on the propriety of them at some time in the future, may we object for the reocrd to your discussion of technical matters without the conferees of the State of New Hampshire being present; and, object to the statements of Mr. Kuh as being hearsay and self-serving statements, such as the statement that notice was given fourteen months prior thereto, on the basis of some casual conversation which may or may not have in fact occurred.

So our position will be clear on the record as to what our position is and our objections will be noted on the record in the event the proceedings are challenged at some time, I make this statement, sir.

MR. STEIN: Are there any further questions or comments?

MR. KALINSKI: And also to any misstatements that were made by Mr. Kuh.

MR. STEIN: Any other comments? If not, let us stand in recess for lunch, and we will reconvene promptly at two o'clock.

(Whereupon, at 12:30 p.m., the conference was recessed until 2:00 p.m. of the same day.)

MR. STEIN: Could we reconvene?

Mr. Rogers?

MR. ROGERS: I think at this time we will have Mr. Sidio, who has prepared this report, come up and give us a summary of the main report and present the supplement, which includes the 1962 data.

Mr. Sidio, would you come up on that, please?

STATEMENT OF A. D. SIDIO, PUBLIC HEALTH ENGINEER, POLLUTION EVALUATION UNIT, ROBERT A. TAFT SANITARY ENGINEERING CENTER, CINCINNATI, OHIO, PUBLIC HEALTH SERVICE, UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

MR. SIDIO: My name is A. D. Sidio. I am with the United States Public Health Service, Robert A. Taft Sanitary Engineering Center.

I would like to present a brief summary of the original or the initial report prepared on the Androscoggin.

The background information included in the report concerns the past studies and resulting accomplishments that have been made in pollution abatement on the Androscoggin River.

The studies of the Androscoggin started as early as 1930. The results of that study indicated that the Androscoggin River was heavily polluted.

During the summer months of 1940, 1941 and 1942, hydrogen sulfide odors were highly objectionable, and concentrations of the gas in the Lewiston-Auburn area were sufficient to tarnish exposed metals and to discolor painted surfaces.

As a result of these gross nuisance conditions, public demand resulted in efforts to improve the condition of the river.

In 1941, Metcalf and Eddy of Boston were retained by the newly formed Sanitary Water Board of the State of Maine to make a study and recommend remedial measures on the condition of the Androscoggin River. In the report it was found that 96 percent at that time, in 1941 -- the report found, or the investigation of the river found, that 96 percent of the organic wastes going into the river were from industrial sources. 92 percent were from the pulp and paper mills, and 71 percent was in the form of concentrated sulfite digester liquors. The total industrial pollution was estimated at a figure of 2,500,000 population equivalents.

That report, the Metcalf and Eddy report, recommended remedial measures. Failure of the pulp and paper mills to begin remedial action resulted in several court decrees. The most recent was issued in 1948. That decree appointed a Pollution Administrator, with authority to regulate activities of the pulp and paper mills relative to the pollution of the river. The decree restricted the discharge of sulfite waste liquors. The restrictions were based on season, river flows, water temperature, and also required that the dissolved oxygen content at North Turner Bridge, which is the slackwater formed by the Gulf Island Dam -- the dissolved oxygen content was to be maintained at not less than 4 parts per million.

Sodium nitrate was used from 1948 through 1960, with the exception of the year 1954, to provide a source of oxygen when the dissolved oxygen in the river became critical.

The sulfite pollution load to the river during the summer of 1961 was estimated to have been reduced to about 5 percent of that during the summer of 1941. This percentage is based on sulfite waste liquor pollution only, and does not consider the total pollutional load being discharged into the river.

As later pointed out in the report prepared on the condition of the Androscoggin River in August 1962, it is pointed out that the actual reduction of organic matter discharged to the river was closer to 45 percent than to the 95 percent, based on the reduction of sulfite waste liquors. Pollution conditions in the Androscoggin River have been improved, but they have not been eliminated.

The Androscoggin River begins at Errol Dam and flows southerly through the State of New Hampshire to Gorham, where it turns in an easterly direction and then in a southerly direction to its mouth at Merrymeeting Bay.

The section of the river concerned with in the August 1962 report is limited to the area from about four miles above Berlin to its mouth in Merrymeeting Bay.

The Androscoggin drains an area of approximately 3,450 square miles, with approximately 85 percent of the basin in forest land, 4 percent in lakes and ponds, and 5.5 percent in cropland.

The economy of the area is based principally on agriculture, lumbering, industry and recreation.

The sources of the data utilized in preparing this report were limited to the summer sampling periods and to the sampling stations listed in Table 1 of that main report. Chemical and physical data used were reproduced from documents on file in the Attorney General's office in Augusta, Maine. The data were collected by the Brown and Oxford paper companies under the direction of the court-appointed Administrator.

Coliform bacteria data were calculated based on the sewered populations of the communities; the multiplication and die-off of this group of bacteria discharged in normal domestic sewage; and flow values in the river in August 1959. Flow data for the report were obtained from the United States Geological Survey gauging stations at Errol, Gorham, Rumford and Auburn on the Androscoggin.

Data were also obtained from the gauges on the Swift, Nezinscot and the Little Androscoggin Rivers.

The sources of pollution to the Androscoggin River are indicated on Chart 1 here by the arrows going into the river from Berlin, Gorham in New Hampshire, and on down the river in the State of Maine. The fourteen sewered communities are listed in Table 3 included in the report. The table includes bacteria population equivalents discharged by each community.

This chart gives a picture of the relative bacterial pollutional loads being discharged by each of the municipalities being located along the Androscoggin, and at this point these municipalities are located on the Little Androscoggin.

Table 4 of the report lists the known sources of organic wastes being discharged to the river, and the relative proportions of the organic wastes discharged from each of the areas is indicated here on Chart 3. The shaded areas represent the industrial wastes. The clear, uncolored areas represent the municipal wastes.

Data collected during the summer of 1961 indicates a total organic load equivalent to that from a population of 1,475,000 being discharged to the Androscoggin River.

MR. STEIN: Mr. Sidio, you know when these charts get reproduced in the record they will all be in black and white, and not in color.

MR. SIDIO: Yes.

Of the organic load discharged to the Androscoggin in the region concerned, 908,500 population equivalents were discharged in the Berlin-Gorham area. Of that load discharged in the Berlin-Gorham area, 891,000 population equivalents were discharged by the Brown Company.

In the Rumford-Mexico area, 318,000 population equivalents were discharged, with 307,000 discharged by the Oxford Paper Company.

At Livermore Falls, 78,000 population equivalents were discharged, with the International Paper Company contributing 75,400.

In the Lewiston-Auburn area, 168,000 population equivalents were discharged, including the wastes discharged to the Little Androscoggin River.

I might add that includes all of the wastes discharged to the Little Androscoggin River by both municipalities and industries in that area. Of the 168,000 population equivalents, 116,800 were discharged by industries.

Of the 1,475,000 population equivalents discharged to the river from Berlin to below Lewiston, industry discharged 94 percent of the organic load and municipal sewage accounted for 6 percent. The reduction of wastes discharged in population equivalents by the Brown Company from 1,576,000 in 1941 to 891,000 in 1961 amounted to 43 percent. The reduction at Rumford by the Oxford Paper Company was from 659,000 in 1941 to 307,000 in 1961, or 53 percent.

At Livermore Falls the reduction by the International Paper Company was from 96,700 in 1941 to 75,400 in 1961, or 22 percent.

Total industrial discharges from Berlin, Rumford, and Livermore Falls, were reduced from 2,331,000 population equivalents in 1941 to 1,273,400 population equivalents in 1961. This amounted to a reduction of 45 percent based on population equivalents as opposed to the 95 percent based on sulfite waste liquor discharges.

The dissolved oxygen concentrations have been of primary concern in the pollution control measures provided along the Androscoggin River. Pollution, specifically from the pulp and paper mills, has been regulated to prevent the complete loss of dissolved oxygen in the river.

The desirable objective of dissolved oxygen content is 5 milligrams per liter for the propagation of fishlife.

Chart 6 presents a comparison of average dissolved oxygen concentrations for August 1957 and August 1961. The one to the right is the August 1957 data. The lines to the left are the August 1961 dissolved oxygen contents at each of the stations along the river. The desirable level of 5 milligrams per liter here is to indicate the extent to which the dissolved oxygen was maintained below the desirable levels.

The Court decree of 1948 required that 4 parts per million of dissolved oxygen be maintained at the North Turner Bridge. That would be Station 9, as shown here on the chart. The 1961 averages indicate approximately 2.7, or somewhat less than 3 milligrams per liter during the month of August 1961.

During the 1961 sampling period, the minimum dissolved oxygen at Station 9, North Turner, was 1.83 milligrams per liter. Average values were 2.64 and 3.31 milligrams per liter for August and September respectively. None of the samples during August and September contained as much as 4 milligrams per liter.

During the 1961 sampling period, dissolved oxygen concentrations of less than 2 milligrams per liter occurred in one or more samples at Stations 5, 6, 8, 9, 10, 11, 11A, and 11B. At Station 11, nine consecutive samples during July and August contained less than 1 milligram per liter of dissolved oxygen, and from July to late September the dissolved oxygen was less than 2 milligrams per liter in all weekly samples. Dissolved oxygen values as low as 0.2 milligrams per liter, or 2 percent saturation, were recorded.

Minimum dissolved oxygen values obtained during the 1961 sampling period from Rumford Point downstream through Lewiston were just barely sufficient to prevent the formation of anaerobic conditions in the river.

Chart 2 here depicts the bacterial population equivalents discharged by each of the municipalities. The areas of the circles are in proportion to the quantities discharged from each of the various municipalities. A maximum density of 5,000 coliform bacteria per 100 milliliters is generally accepted as satisfactory water to be treated for potable supplies. A limit of 1,000 coliform per 100 milliliters is generally accepted in other areas for swimming and other recreational uses requiring contact with the water.

Calculated coliform bacteria densities per 100 milliliters and total coliforms per day from above Berlin to the mouth at Merrymeeting Bay are presented in Chart 7. At no point from Berlin to the mouth did the calculated density of coliform bacteria drop below 15,000 per 100 milliliters, except in the lower portion of the Gulf Island pool. The calculated coliform densities exceeded 5,000 per 100 milliliters by 3 to 50 times.

Below the Berlin-Gorham area the calculated density of coliform bacteria was 130,000 per 100 milliliters. A density of 115,000 per 100 milliliters was calculated at the State line.

A maximum density of 253,000 coliform per 100 milliliters was calculated at a point six miles downstream from the Lewiston-Auburn area. This calculation included the contributions of those municipalities discharging sewage to the Little Androscoggin River.

The river is not suitable bacteriologically for use as a source of domestic water supply, swimming, general recreation, and certain industrial supplies.

The uses prevented or interfered with by the existing quality of water available in the river include

(1) Development as a public water supply.
(2) General Recreation.

(3) Development as industrial supplies requiring higher quality than that available.
(4) Propagation of fish.
(5) Passage of anadromous fish.
(6) Harvesting of shellfish from the Merrymeeting Bay area.
(7) Livestock watering.

The summary and conclusions of the August 1962 report are as follows:

"An analysis of the existing chemical and physical data on the Androscoggin River obtained from the Offices of the Attorney General of Maine was made with particular consideration of the data for the summer months of 1961. Calculations were made to estimate the bacteriological effects on the river by municipal sewage discharges.

"A continuing program to regulate pollution of the Androscoggin has been conducted by the states and industry since 1943. The program has been conducted under a series of decrees by the Supreme Judicial Court of Equity for Androscoggin County. The decrees have required the controlled discharge of sulfite waste liquors, the maintenance of a sampling and analysis program during the summer months by industry, and the construction of certain control facilities. One requirement for satisfactory control was that four parts per million of dissolved oxygen was to be maintained at North Turner, at the head of the pool formed by the Gulf Island Dam. Requirements of the court decrees have been supervised by a court appointed administrator since 1948.

"The controls placed on industry have been aimed at the prevention of a public nuisance, while continuing to use the river as a means of disposing of industrial wastes and municipal sewage. The "public nuisance' has been considered only in light of obnoxious odors, floating gas-lifted sludges, corroded metals and discolored paint. Reports indicate that the controls have succeeded in removing these extremely undesirable results of gross pollution.

"Although the condition has been improved since 1940, analysis of the 1961 data indicates the Androscoggin River remains polluted. The pollution assimilation capacity of the river is so utilized that the quality is maintained at a level that will just prevent the development of obnoxious conditions.

"The organic load discharged to the river from Berlin, New Hampshire, to a point below the Auburn-Lewiston area during the summer of 1961 was equivalent to that from a population of 1,475,000. Of this load, industrial wastes contributed 94 percent and municipal sewage 6 percent. Wastes having a population equivalent of 908,500 were discharged in New Hampshire.

"Dissolved oxygen concentrations from Rumford Point to Lewiston were in general below 5 mg/l, and frequently approached zero from Turner Center through the Lewiston stations.

"Calculations of coliform bacteria densities indicate excessively "high numbers of sewage bacteria present in the stream below the municipal discharges.

"Additional data are needed to evaluate the significant industrial contributions other than the pulp and paper mills. Bacteriological data are needed to ascertain the behavior of the indicator organisms in this specific river. Biological studies are needed to determine the effect of the wastes on the aquatic life.

"Pollution of the Androscoggin River was caused during the summer of 1961 by municipal and industrial wastes which:

"1. Caused excessively high concentrations of oxygen demanding organic matter.
2. Depleted the dissolved oxygen content of the river to barely trace quantities below Rumford, in the Gulf Island Pool and in the Lewiston-Auburn area. Dissolved oxygen content was depleted below the desirable 5 mg/l from Station 3, Gilead, to below Lewiston and Auburn.
3. Caused excessively high densities of coliform bacteria.
4. Destroyed the aesthetic value of the river from Berlin to the mouth.
5. Prevented development of fishery resources.
6. Caused a pollutional block preventing the passage of anadromous fish.
7. Contributed to the polluted condition of Merrymeeting Bay resulting in the bay being closed to shellfish harvesting.
8. Caused the river to be of such low quality so as to prevent the potential development of municipal and industrial water supplies, and recreational uses.

"Pollution of the Androscoggin River at the New Hampshire-Maine state line is evident. Pollution originating in New Hampshire damaged the water quality at the state line, and the residuals of this pollution along with the added wastes in Maine, contributed to the degraded quality to the mouth in Merrymeeting Bay.

"Pollution by Berlin and Gorham, and the Brown Paper Company at Berlin, in New Hampshire constitutes interstate pollution, subject to abatement under the Federal Water Pollution Control Act, since the Health or Welfare of persons, in a state other than that in which the pollution originates, is endangered."

That concludes the summary of the original or the initial report.

Do you want me to continue into the supplement?

MR. ROGERS: Yes.

MR. SIDIO: "Pollution of the Androscoggin River is described in the August 1962 'Report on Androscoggin River, New Hampshire-Maine.' That document will be referred to as the 'Report.'

"The Report includes information on the condition of the Androscoggin River through the year 1961 as indicated by data obtained from the offices of the Attorney General of Maine."

I have just completed reading the conclusions of that Report and I will skip over the next two paragraphs of this report.

"1963 SUPPLEMENT

"The Report of August 1962 included data through the summer months of 1961. This Supplement of January 1963 includes the data obtained during the summer months of 1962. The data were collected for the same sampling stations as those listed in Table 1 of the report.

"ANALYSIS OF 1962 DATA

"Analyses of the 1962 data were made in the same manner used in preparing the Report. Values obtained from the 1962 data are presented in Table Sup. 1. A comparison of the 1962 and 1961 values is also presented in the table."

If there is no objection, Mr. Chairman, I would like to ask that these tables all be included in the record.

MR. STEIN: These tables will be included in the record.

(The tables referred to are as follows:)

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 1 - BELL's
RIVER MILE 138.8

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	3212	1843	10.20	8.55	145	81	1.3	1.2	19	12	112	72
MIN.	2004	1699	7.60	8.06	82	78	1.0	0.8	11	8	64	46
AVG.	2645	1768	8.62	8.26	124	79	1.1	1.1	16	11	92	63
JULY												
MAX.	1989	1827	7.91	8.25	84	79	1.4	0.9	15	8	87	50
MIN.	1958	1707	6.66	7.85	72	73	0.8	0.7	8	6	50	39
AVG.	1969	1761	7.38	8.01	78	76	1.0	0.8	10	7	61	43
AUG.												
MAX.	2127	2389	7.91	8.16	91	102	1.3	1.0	14	11	84	65
MIN.	2044	1746	6.99	7.55	79	75	0.8	0.4	9	4	52	23
AVG.	2085	2036	7.50	7.96	84	87	1.0	0.7	11	8	63	47
SEPT.												
MAX.	2013	2275	8.26	9.59	88	111	1.0	1.1	11	13	63	77
MIN.	1978	2069	7.09	8.16	76	91	0.6	0.4	6	5	38	28
AVG.	1992	2164	7.60	8.80	82	103	0.8	0.7	9	8	51	51
SUMMARY												
MAX. MO.	2645	2164	8.62	8.80	124	103	1.1	1.1	16	10.5	92	63
MIN. MO.	1969	1761	7.38	7.96	78	76	0.8	0.7	9	7	51	43
YR. AVG.	2173	1938	7.78	8.24	92	86	1.0	0.8	12	8.4	72	51
	(-235)		(+.46)		(-6)		(-0.2)		(-3.6)		(-21)	

STATION NO. 2 - TWIN STATE
RIVER MILE 130.4

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	3542	1976	9.63	8.98	170	94	13.7	15.1	176	154	1035	922
MIN.	2110	1820	6.09	6.31	69	62	5.4	4.1	98	43	573	259
AVG.	2948	1899	8.17	7.26	133	75	9.7	10.9	148	111	870	664
JULY												
MAX.	2130	2026	8.23	8.49	91	84	14.6	9.1	164	99	966	596
MIN.	2044	1760	5.49	6.52	62	64	2.8	3.7	31	37	182	219
AVG.	2078	1860	6.44	7.63	72	76	10.3	6.4	116	65	682	391
AUG.												
MAX.	2170	3122	7.04	8.04	82	135	16.6	13.2	188	144	1105	862
MIN.	2096	1898	5.64	5.80	64	59	10.7	7.2	122	85	720	512
AVG.	2125	2453	6.34	7.45	73	100	12.7	9.6	146	124	856	743
SEPT.												
MAX.	2044	2480	6.93	9.94	75	123	13.4	11.6	146	143	857	855
MIN.	2012	2194	5.43	7.92	60	102	10.8	4.7	119	58	701	348
AVG.	2027	2355	6.34	8.93	69	113	12.3	7.0	135	88	793	531
SUMMARY												
MAX. MO.	2948	2453	8.17	8.93	133	113	12.7	10.9	148	124	870	743
MIN. MO.	2027	1860	6.34	7.26	69	75	9.7	6.4	116	65	682	391
YR. AVG.	2294	2160	6.82	7.80	87	92	11.3	8.5	136	99	816	592
	(-134)		(+0.98)		(+5)		(-2.8)		(-37)		(-224)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

Summer Months 1961-1962

STATION NO. 3 - GILEAD
RIVER MILE 119.2

TABLE SUP. 1

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 1962	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	3661	2140	10.01	7.56	177	87	10.1	12.8	146	143	860	856
MIN.	2164	1838	4.97	4.15	58	41	5.1	3.3	97	38	570	228
AVG.	3100	1988	7.71	5.60	133	61	7.2	9.5	117	100	688	601
JULY												
MAX.	2239	2113	6.93	8.07	78	81	19.6	6.7	237	68	1393	405
MIN.	2093	1787	3.21	5.38	39	54	3.8	4.1	43	47	253	280
AVG.	2153	1906	4.91	6.68	57	68	11.8	5.3	139	54	819	325
AUG.												
MAX.	2188	3558	6.14	7.14	73	137	14.0	10.8	161	125	946	748
MIN.	2129	1978	3.63	4.92	42	52	6.5	6.5	77	94	452	565
AVG.	2149	2694	4.56	6.22	53	92	9.8	7.9	114	111	670	666
SEPT.												
MAX.	2069	2625	5.52	8.59	62	122	12.2	9.3	133	118	784	707
MIN.	2023	2270	4.60	7.66	50	98	10.0	2.5	112	35	657	212
AVG.	2048	2459	5.13	8.20	57	109	10.9	5.3	120	69	707	413
SUMMARY												
MAX. MO.	3100	2964	7.71	8.20	133	109	11.8	9.5	139	111	819	666
MIN. MO.	2048	1906	4.56	5.60	53	60.7	7.2	5.3	114	54	670	325
YR. AVG.	2362	2288	5.58	6.65	75	83.1	9.9	7.0	122	85.1	732	511
	(-74)		(+1.07)		(+8.1)		(-2.9)		(-37)		(-221)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 4 - BETHEL
RIVER MILE 109

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 1962	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	3716	2227	9.96	6.99	182	84	9.5	9.0	144	102	850	613
MIN.	2189	1846	5.69	4.77	67	48	5.2	2.8	95	34	559	202
AVG.	3170	2030	7.78	6.25	137	69	6.9	7.2	115	77	674	462
JULY												
MAX.	2288	2153	7.47	7.35	85	78	10.1	5.6	125	57	734	342
MIN.	2115	1800	4.45	5.38	55	55	2.4	1.9	27	19	161	115
AVG.	2188	1928	5.73	6.62	67	69	8.0	3.1	95	32	557	194
AUG.												
MAX.	2196	3758	5.83	6.52	69	131	12.1	6.7	140	124	824	741
MIN.	2133	2014	3.93	5.33	46	62	5.9	5.5	69	64	408	384
AVG.	2160	2805	4.76	6.04	56	93	7.8	6.1	90	93	531	560
SEPT.												
MAX.	2084	2698	5.61	8.44	63	123	12.0	6.2	133	80	780	479
MIN.	2028	2305	4.24	7.04	46	89	3.6	1.1	40	16	237	96
AVG.	2058	2507	5.00	7.57	56	103	8.2	3.6	92	48	538	287
SUMMARY												
MAX. MO.	3170	2805	7.78	7.57	137	103	8.2	7.2	115	93	674	560
MIN. MO.	2058	1928	4.76	6.04	56	68.8	6.9	3.1	90	32	531	194
YR. AVG.	2394	2346	5.82	6.58	79	83.7	7.7	5.1	98	64	588	387
	(-48)		(+0.76)		(+5)		(-2.6)		(-34)		(-201)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 5 - RUMFORD POINT
RIVER MILE 92.7

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	4648	2747	8.50	6.95	192	103	6.8	7.3	114	90	668	537
MIN.	2385	1896	4.80	3.73	62	38	2.7	2.8	68	42	398	249
AVG.	3709	2275	6.71	5.13	139	65	4.5	5.8	84	69	492	412
JULY												
MAX.	2585	2390	6.50	6.15	79	78	5.6	3.3	73	34	427	205
MIN.	2235	1874	2.93	5.30	41	55	2.0	1.9	24	19	143	115
AVG.	2368	2057	4.24	5.78	53	64	4.4	2.4	56	27	332	161
AUG.												
MAX.	2263	4951	3.90	5.50	47	137	5.8	5.3	70	133	411	801
MIN.	2158	2232	1.30	4.45	15	54	3.5	4.3	42	56	248	339
AVG.	2227	3465	2.76	4.81	33	92	4.5	4.8	54	89	316	536
SEPT.												
MAX.	2173	3134	4.80	7.83	55	132	3.9	3.4	44	47	261	284
MIN.	2058	2513	2.80	6.80	31	94	1.6	1.6	18	27	108	162
AVG.	2118	2792	3.74	7.11	43	107	3.1	2.3	36	34	210	206
SUMMARY												
MAX. MO.	3709	3465	6.71	7.11	139	107	4.5	5.8	84	89	492	536
MIN. MO.	2118	2057	2.76	4.81	33	64	3.1	2.3	36	27	210	161
YR. AVG.	2606	2695	4.36	5.65	67	83	4.1	3.9	58	57	348	341
		(+89)		(+1.29)		(+16)		(-0.2)		(-1)		(-7)

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 6 - RUMFORD
RIVER MILE 87.6

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	4700	2790	8.50	6.10	190	92	3.4	5.4	76	62	446	374
MIN.	2400	1900	3.80	2.30	49	24	2.8	2.6	44	39	259	235
AVG.	3746	2295	6.03	4.03	128	52	3.1	4.2	62	50	367	299
JULY												
MAX.	2610	2410	5.70	5.53	70	66	3.8	2.9	54	30	315	181
MIN.	2260	1880	2.73	3.85	36	40	2.0	1.8	25	20	149	119
AVG.	2410	2068	4.15	4.89	53	55	3.0	2.2	39	24	229	142
AUG.												
MAX.	2270	5050	3.55	4.80	43	122	4.7	5.2	57	142	334	849
MIN.	2160	2250	0.75	2.83	9	40	2.0	2.6	24	32	143	189
AVG.	2232	3520	2.04	3.85	25	76	3.0	4.3	37	85	216	508
SEPT.												
MAX.	2180	3170	4.00	7.33	46	125	3.8	2.2	43	34	255	201
MIN.	2060	2530	2.00	6.30	22	86	1.1	1.5	13	20	75	123
AVG.	2123	2815	3.04	6.76	35	103	2.5	1.9	29	29	170	173
SUMMARY												
MAX. MO.	3746	3520	6.03	6.76	128	103	3.1	4.3	62	85	367	508
MIN. MO.	2123	2068	2.04	3.85	25	52	2.5	1.9	29	24	170	142
YR. AVG.	2628	2724	3.82	4.82	60	72	2.9	3.2	42	49	252	294
	(+96)		(+1.00)		(+12)		(+0.3)		(+7)		(+42)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 7 - DIXFIELD
RIVER MILE 82.0

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 1962	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	5040	2979	9.30	6.45	239	104	8.6	11.3	135	124	793	745
MIN.	2576	2038	4.65	3.33	65	37	3.2	7.2	75	102	444	613
AVG.	4019	2458	7.34	4.72	167	65	5.3	8.9	106	116	626	695
JULY												
MAX.	2800	2576	7.00	5.48	91	75	7.2	7.3	98	85	574	508
MIN.	2419	2016	4.03	5.00	57	59	4.8	4.4	73	49	427	293
AVG.	2582	2212	5.49	5.34	76	64	5.8	6.0	81	71	474	428
AUG.												
MAX.	2442	5421	4.50	8.00	58	217	8.0	8.1	105	237	614	1420
MIN.	2307	2419	2.40	4.35	30	57	5.8	5.8	75	93	441	555
AVG.	2392	3772	3.39	5.82	44	126	6.6	6.8	85	140	500	840
SEPT.												
MAX.	2330	3405	4.50	7.98	56	146	6.7	6.8	82	99	481	596
MIN.	2218	2710	3.30	6.30	40	92	5.0	3.8	62	70	363	418
AVG.	2274	3018	4.10	7.12	50	117	5.8	5.3	72	85	420	509
SUMMARY												
MAX. MO.	4019	3772	7.34	7.12	167	126	6.6	8.9	106	140	626	840
MIN. MO.	2274	2212	3.39	4.72	44	64	5.3	5.3	72	71	420	428
YR. AVG.	2817	2919	5.08	5.75	84	95	5.9	6.8	86	105	516	631
	(+102)		(+0.67)		(+11)		(+0.9)		(+19)		(+115)	

STATION No. 8 - RILEY
RIVER MILE 65.5

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	5140	3043	8.68	4.33	214	71	6.8	9.3	109	104	643	626
MIN.	2631	2082	3.95	1.35	56	15	3.0	5.6	72	70	425	422
AVG.	4105	2511	6.34	3.12	147	44	4.5	7.0	93	93	545	556
JULY												
MAX.	2860	2631	5.75	3.30	77	47	5.0	6.0	72	85	421	511
MIN.	2471	2059	3.05	0.85	44	10	4.1	3.9	56	43	330	260
AVG.	2637	2259	4.41	2.40	62	30	4.4	4.4	62	55	366	331
AUG.												
MAX.	2494	5536	2.23	6.75	28	167	6.3	5.6	83	167	490	1003
MIN.	2357	2471	0.45	2.15	6	29	3.4	4.1	45	55	264	328
AVG.	2444	2853	1.49	3.88	20	86	4.5	5.0	60	107	350	645
SEPT.												
MAX.	2380	3477	2.65	7.20	34	135	4.5	3.9	56	58	330	349
MIN.	2265	2768	0.90	4.35	11	65	1.9	2.7	24	41	141	248
AVG.	2322	3083	1.93	5.78	24	97	3.2	3.1	40	51	233	304
SUMMARY												
MAX. MO.	4105	3853	6.34	5.78	147	97	4.5	7.0	93	107	545	645
MIN. MO.	2322	2259	1.49	2.40	20	30	3.2	3.1	40	51	233	304
YR. AVG.	2877	2961	3.54	3.80	63	65	4.2	4.9	64	70	304	470
	(+104)		(+0.26)		(+2)		(+0.7)		(+14)		(+66)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 9 - NORTH TURNER
RIVER MILE 49.0

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	5227	3090	9.33	5.50	235	92	6.0	6.3	113	80	665	483
MIN.	2671	2114	4.00	2.70	58	31	3.2	3.2	79	53	467	320
AVG.	4167	2550	6.75	3.96	160	56	4.4	5.2	94	69	550	413
JULY												
MAX.	2904	2672	6.03	6.35	82	73	4.9	5.0	72	61	424	368
MIN.	2509	2091	4.10	3.40	60	38	3.2	3.0	45	35	264	207
AVG.	2678	2294	5.14	4.51	74	56	4.1	4.0	60	50	353	298
AUG.												
MAX.	2532	5622	3.00	6.90	40	194	4.2	5.7	56	152	332	913
MIN.	2393	2509	1.83	2.68	24	36	3.1	4.3	42	68	249	407
AVG.	2481	3912	2.64	4.51	35	100	3.7	5.2	50	108	291	648
SEPT.												
MAX.	2416	3531	3.83	7.60	50	145	4.3	3.1	54	55	320	331
MIN.	2300	2811	2.30	5.85	29	89	2.3	2.6	29	39	173	236
AVG.	2358	3130	3.31	6.67	42	113	3.4	2.8	43	48	253	287
SUMMARY												
MAX. MO.	4167	3912	6.75	6.67	160	113	4.4	5.2	94	108	550	648
MIN. MO.	2358	2294	2.64	3.96	35	56	3.4	2.8	43	48	253	287
YR. AVG.	2921	3027	4.46	4.89	78	82	3.9	4.4	62	71	372	425
	(+106)		(+0.43)		(+4)		(+0.5)		(+9)		(+53)	

STATION NO. 10 - TURNER CENTER
RIVER MILE 42.0

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	5292	3128	8.95	4.50	231	76	5.5	5.1	115	63	674	380
MIN.	2705	2140	4.20	2.18	61	25	2.7	2.7	61	46	361	273
AVG.	4219	2581	6.35	3.18	152	46	3.8	4.2	83	57	488	340
JULY												
MAX.	2940	2705	5.15	3.63	71	51	4.3	3.2	63	38	372	227
MIN.	2540	2117	2.00	3.18	32	36	3.1	2.4	44	28	259	168
AVG.	2710	2323	3.67	3.38	53	42	3.6	2.7	53	34	313	202
AUG.												
MAX.	2564	5692	2.63	4.95	36	141	4.0	4.2	54	129	320	773
MIN.	2422	2540	0.65	2.98	9	41	2.7	2.8	37	38	220	230
AVG.	2512	3960	1.99	3.72	27	82	3.2	3.7	43	81	255	486
SEPT.												
MAX.	2446	3575	4.00	6.88	52	108	3.0	2.7	40	52	233	312
MIN.	2328	2846	2.55	5.10	34	86	2.0	2.3	26	35	152	212
AVG.	2387	2535	3.32	5.79	43	98	2.4	2.5	31	43	182	257
SUMMARY												
MAX. MO.	4219	3960	6.35	5.79	152	98	3.8	4.2	83	81	488	486
MIN. MO.	2387	2323	1.99	3.18	27	42	2.4	2.5	31	34	182	202
YR. AVG.	2957	3064	3.83	4.00	69	68	3.3	3.3	52	55	312	331
	(+107)		(+0.17)		(-1)		(±)		(+3)		(+19)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 11 - GULF ISLAND
RIVER MILE 34.4

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 1962	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	7405	4340	8.20	2.68	293	68	2.4	4.2	86	82	504	493
MIN.	4305	3580	1.90	0.20	44	4	2.0	1.6	49	34	287	205
AVG.	5780	3875	5.12	1.21	173	27	2.2	2.7	68	56	400	338
JULY												
MAX.	4495	3585	0.80	1.30	19	22	3.2	2.3	73	43	431	256
MIN.	4230	2474	0.23	0.20	5	4	1.1	0.9	27	15	157	91
AVG.	4345	3152	0.44	0.53	10	9	1.9	1.5	44	25	257	152
AUG.												
MAX.	3955	6170	0.45	2.55	9	61	2.9	1.4	58	37	339	220
MIN.	2989	3535	0.20	1.05	4	25	1.1	1.0	23	21	135	126
AVG.	3492	4550	0.28	1.94	5	47	2.2	1.1	41	28	240	167
SEPT.												
MAX.	4090	4770	3.20	4.05	71	93	1.5	1.1	33	26	195	155
MIN.	2810	4235	1.08	1.00	18	24	0.8	0.8	12	19	71	112
AVG.	3298	4443	1.92	2.90	36	70	1.0	1.0	19	23	111	137
SUMMARY												
MAX. MO.	5780	4550	5.12	2.90	173	69.5	2.2	2.7	68	56.3	400	338
MIN. MO.	3298	3152	0.28	0.53	5	8.9	1.0	1.0	19	22.8	111	137
YR. AVG.	4229	4028	1.94	1.66	56	38.5	1.8	1.5	43	32.7	258	196
	(-201)		(-0.28)		(-17.5)		(-0.3)		(-10.3)		(-62)	

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STATION NO. 11a - DEER RIPS
RIVER MILE 33.7

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

TABLE SUP. 1

MONTH	FLOW		D.O. mg/1		D.O. 1,000#/day		B.O.D. mg/1		B.O.D. 1,000#/day		P.E. 1,000 cap.	
	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962	1961	1962
JUNE												
MAX.	7504	4340	8.50	3.10	304	73	2.7	4.8	80	94	470	563
MIN.	4305	3500	2.00	0.28	46	6	2.0	2.0	46	43	273	256
AVG.	5700	3875	5.35	1.14	182	31	2.3	3.1	70	63	411	381
JULY												
MAX.	4495	3585	2.40	1.93	58	33	2.8	2.4	64	37	377	222
MIN.	4230	2474	0.48	0.30	11	6	1.9	1.0	46	17	271	101
AVG.	4345	3152	1.08	0.84	26	14	2.3	1.7	54	28	317	170
AUG.												
MAX.	3955	6170	0.55	3.18	10	76	2.7	1.5	58	43	339	260
MIN.	2989	3535	0.30	1.40	5	30	1.4	1.2	29	25	172	149
AVG.	3492	4550	0.43	2.06	8	51	2.2	1.3	41	32	240	187
SEPT.												
MAX.	4090	4770	2.55	4.70	56	108	1.5	1.4	25	32	149	192
MIN.	2810	4235	0.80	1.63	13	39	1.1	1.1	18	28	107	169
AVG.	3298	4445	1.58	3.32	30	79	1.2	1.2	22	29	127	176
SUMMARY												
MAX.	5780	4550	5.35	3.32	182	79.4	2.3	3.1	70	63.4	411	381
MIN.	3298	3152	0.43	0.84	8	14.0	1.2	1.2	22	28.2	127	170
AVG.	4229	4028	2.11	1.91	62	44.4	2.0	1.8	47	37.8	282	226
	(-201)		(-0.20)		(-17.6)		(-0.2)		(-9.2)		(-56)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 11b - LEWISTON
RIVER MILE 30.5

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 104	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	7405	4340	3.95	4.30	328	101	2.6	3.8	88	74	517	446
MIN.	4305	3580	2.90	0.70	67	14	2.2	2.2	51	43	301	255
AVG.	5708	3875	5.93	2.18	200	48	2.4	2.8	73	57	431	343
JULY												
MAX.	4495	3585	1.60	3.25	39	55	2.4	1.9	55	35	323	211
MIN.	4230	2474	1.10	0.68	26	9	1.7	1.3	41	21	242	128
AVG.	4345	3152	1.37	1.55	32	27	2.0	1.5	46	26	272	156
AUG.												
MAX.	3955	6170	1.60	4.10	33	108	1.9	1.3	41	43	239	260
MIN.	2989	3535	0.75	2.20	14	42	1.1	1.1	23	23	135	137
AVG.	3492	4550	1.00	3.06	19	76	1.5	1.2	29	29	168	174
SEPT.												
MAX.	4090	4770	3.30	5.48	73	125	1.4	1.6	27	38	156	229
MIN.	2810	4235	1.35	2.78	23	66	1.0	1.0	15	23	89	140
AVG.	3298	4443	2.32	4.16	43	100	1.2	1.3	21	31	124	183
SUMMARY												
MAX. MO.	5780	4550	5.93	4.16	200	99.7	2.4	2.8	73	57.2	431	343
MIN. MO.	3298	3152	1.00	1.55	19	26.8	1.2	1.2	21	25.9	124	156
YR. AVG.	4229	4028	2.66	2.76	74	63.3	1.8	1.7	42	35.3	252	212
	(-201)		(+0.10)		(-10.7)		(-0.1)		(-6.7)		(-40)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

STATION NO. 12 - LISBON FALLS
RIVER MILE 15.7

TABLE SUP. 1

Summer Months 1961-1962

MONTH	FLOW 1961	FLOW 1962	D.O. mg/1 1961	D.O. mg/1 1962	D.O. 1,000#/day 1961	D.O. 1,000#/day 1962	B.O.D. mg/1 1961	B.O.D. mg/1 1962	B.O.D. 1,000#/day 1961	B.O.D. 1,000#/day 1962	P.E. 1,000 cap. 1961	P.E. 1,000 cap. 1962
JUNE												
MAX.	8024	4831	10.30	8.95	422	233	3.2	2.5	131	62	771	375
MIN.	4434	3780	8.10	8.15	194	166	2.4	1.9	57	40	338	240
AVG.	6360	4210	9.18	8.53	320	194	2.9	2.2	102	50	601	302
JULY												
MAX.	4851	3842	9.18	8.63	215	169	2.0	2.2	52	37	305	224
MIN.	4573	2596	8.10	7.68	202	121	1.6	1.2	42	25	246	149
AVG.	4705	3360	8.22	8.08	209	146	1.8	1.6	46	29	272	173
AUG.												
MAX.	4161	6561	8.45	8.60	190	302	2.4	1.9	54	67	317	403
MIN.	3152	3801	7.05	8.25	120	169	1.5	1.5	30	35	178	209
AVG.	3677	4818	7.98	8.47	159	220	1.9	1.7	37	45	218	268
SEPT.												
MAX.	4439	5315	8.80	9.78	211	264	1.8	1.9	43	46	254	279
MIN.	2997	4542	7.38	8.85	121	222	1.4	1.4	23	35	133	211
AVG.	3530	4797	7.84	9.18	151	237	1.6	1.6	31	41	184	247
SUMMARY												
MAX. MO.	6360	4818	9.18	9.18	320	237	2.9	2.2	102	50	601	302
MIN. MO.	3530	3360	7.84	8.08	151	146	1.6	1.6	31	29	184	173
YR. AVG.	4568	4327	8.30	8.56	210	201	2.0	1.8	54	41	324	249
	(-241)		(+0.26)		(-9)		(-0.2)		(-13)		(-75)	

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

*TABLE SUP. 2

SOURCES OF ORGANIC WASTES

Summers 1961-1962

	River Mile	B.O.D. Population Equivalents					
		Individual Sources			Total for Area		
		Avg. 1961	Avg. 1962	Aug. 1962	Avg. 1961	Avg. 1962	Aug. 1962
NEW HAMPSHIRE							
BERLIN	135	15,000	15,000	15,000 (1)	961,000	670,000	780,000
Brown Co.		891,000	655,000	765,000 (2)			
GORHAM	128	2,500	2,500	2,500 (1)	2,500	2,500	2,500
MAINE							
BETHEL	106	1,200	1,200	1,200 (1)	1,200	1,200	1,200
RUMFORD-MEXICO	83	11,000	11,000	11,000 (1)	318,000	390,000	345,000
Oxford Paper Co.		307,000	379,000	334,000 (2)			
DIXFIELD	79.5	1,200	1,200	1,200 (1)	1,200	1,200	1,200
LIVERMORE FALLS	59	2,600	2,600	2,600 (1)	78,000	63,000	160,000
Internat'l. Paper Co.		75,400	60,400	157,400 (2)			
AUBURN	28.5	14,500	14,500	14,500 (1)			
LEWISTON	28	31,000	31,000	31,000 (1)			
Bates Mfg. Co. Cotwool Mfg. Co. W. S. Libbey Co. N. Amer. Phillips Co.							

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
(Supplement)

*TABLE SUP. 2

SOURCES OF ORGANIC WASTES

Summers 1961-1962
(Continued)

		B.O.D. Population Equivalents					
		Individual Sources			Total for Area		
	River Mile	Avg. 1961	Avg. 1962	Aug. 1962	Avg. 1961	Avg. 1962	Aug. 1962
LITTLE ANDROSCOGGIN RIVER							
SOUTH PARIS	27-23	1,500	1,500	1,500 (1)			
A.C.Lawrence Leather Co. Burnham & Morrill Co.							
OXFORD (T)	27-19			D.N.A.(3)			
Robinson Mfg. Co.							
MECHANIC FALLS	27-12	1,400	1,400	1,400 (1)			
Water Falls Tissue Co.							
POLAND (T)	27-11			D.N.A.(3)			
Rogers Fiber Co., Inc.							
NORWAY	27-22	2,800	2,800	2,800 (1)			
**SUB-TOTAL		51,200	51,200	51,200	168,000	150,000	150,000
(1961 Avg.) TOTAL		84,700 (1) 1,390,200 (2)			1,474,900		
(1962 Avg.) TOTAL			84,700 (1) 1,193,200 (2)			1,277,900	
(1962 August) TOTAL				84,700 (1) 1,355,200 (2)			1,439,000

(1) Municipal Sewage
(2) Industrial Waste
(3) D.N.A. - Does Not Apply - Municipal Sewage Not Discharged To Stream.

* Revision of Table 4 - Following Page 11 of the August 1962 Report.
** Sub-Total (Lewiston-Auburn Area and Little Androscoggin River, Municipalities & Industries).

MR. SIDIO: "Included in the table are data on flow, dissolved oxygen in milligrams per liter and in thousands of pounds per day, biochemical oxygen demand in milligrams per liter and in thousands of pounds per day, and population equivalents for the months of June through September.

"BIOCHEMICAL OXYGEN DEMAND (B.O.D.)

"Biochemical oxygen demand data for the summer months of 1962 are presented in Table Sup. 1.

"The highest concentration of biochemical oxygen demand occurred below Berlin with an average of 8.5 milligrams per liter.

"Average values for the 1962 data ranged from 0.8 milligrams per liter at the Bell's above Berlin to the 8.5 milligrams per liter below Berlin. This range was from 1.0 to 11.3 milligrams per liter during 1961. Maximum monthly biochemical oxygen demand averages ranged from 1.1 milligrams per liter to 10.9 milligrams during 1962 as compared with a range of 1.1 to 12.7 milligrams per liter during 1961.

"The organic load, in population equivalents, at each sampling station is presented in Table Sup. 1. The highest average organic load occurred at Dixfield below the Rumford-Mexico area. The average load amounted to 105,000 pounds of biochemical oxygen demand per day or 630,000 population equivalents.

"Known sources of organic wastes are listed in biochemical oxygen demand population equivalents in Table Sup. 2. Data are presented in the table on average values obtained during the summer of 1961 and 1962, and the average values for August 1962.

"During the 1962 sampling period an average load equivalent to a population of 670,000 was discharged to the Androscoggin River at Berlin. Of this load the Brown Company mill discharged an average of 655,000 population equivalent.

"During the month of August 1962 weekly reports of the Industrial Pollution Administrator indicate a discharge of 151.2 to 293.0 equivalent tons of sulfite waste liquors by the Brown Company. The discharge of the sulfite wastes increased the total organic load from Berlin to 780,000 population equivalents. Data for 1961 indicated an average load of 906,000 population equivalents.

"For the months of July and September, when no discharge of sulfite waste liquors from the Brown Company plant was indicated, an average load of 573,000 population equivalents from the Berlin area was calculated.

"At the Rumford-Mexico area an average of 390,000 population equivalents were discharged during 1962 compared to 318,000 in 1961. During the month of August 1962 the average load from the Rumford-Mexico area was 345,000.

"At Livermore Falls an average of 63,000 population equivalents were discharged as compared to 78,000 during 1961. An average load of 160,000 population equivalents was discharged during August 1962.

"The organic load discharged in the Lewiston-Auburn area, including the municipal and industrial wastes discharged to the Little Androscoggin River, amounted to 150,000 population equivalents.

"Data for the summer months of 1962 indicate an average organic load of 1,277,900 population equivalents discharged to the river from Berlin to a point below Lewiston-Auburn. The load amounted to a reduction of 13 percent below the 1,474,900 population equivalents of 1961.

"Of the 1,277,900 population equivalents 627,500 were discharged in New Hampshire and 605,400 in Maine. Municipal sewage accounted for 84,700 population equivalents, and industrial wastes 1,193,200.

"During the month of August 1962 a population equivalent of 1,439,900 was discharged to the Androscoggin River in the Berlin-Lewiston reach. Of this load industry discharged 1,355,200 population equivalents.

"The average industrial discharges during 1962 from Berlin, Rumford and Livermore Falls indicate a 53 percent reduction from these same areas in 1941. The August 1962 averages indicate a reduction of 46 percent from the 1941 loads.

"DISSOLVED OXYGEN (D. O.)

"Minimum dissolved oxygen concentrations of less than 5 milligrams per liter were recorded at Station 3, Gilead through Lewiston during 1962. Average monthly values of less than 5 milligrams per liter were recorded from Station 5, Rumford Point through the Lewiston stations. A minimum monthly average of 0.53 milligrams per liter was recorded at Station 11, Gulf Island Dam. At the North Turner Bridge, Station 9, a monthly average of 3.96 milligrams per liter was recorded during June. Here a minimum of 2.68 milligrams per liter was recorded with 6 of the 17 samples considered less than 4 milligrams per liter. Dissolved oxygen concentrations of less than 2 milligrams per liter were recorded for one or more samples during 1962 at Stations 8, 11, 11a and 11 b.

"Some improvement of dissolved oxygen conditions was indicated by the 1962 data, though desirable levels were not maintained.

"SUMMARY AND CONCLUSIONS

"An analysis of the 1962 data on the Androscoggin River obtained from the offices of the Attorney General of Maine was made, and a comparison of the results for the months of June through September 1962 and 1961 prepared.

"The analysis of the 1962 data, in general, confirms the findings of the August 1962 report furnished earlier to the Water Pollution Con-

"trol agencies of the States of New Hampshire and Maine.

"Pollution of the Androscoggin River at the New Hampshire-Maine State line, subject to abatement under the Federal Water Pollution Control Act, continued to exist."

That concludes my report, Mr. Chairman.

MR. STEIN: Are there any comments or questions?

MR. KALINSKI: Mr. Chairman, on behalf of the State of New Hampshire, may I again first note my objection for the record here that this technical discussion was made without the conferee of the State of New Hampshire being present.

Secondly, may I say that the State of New Hampshire in no way concurs in the conclusions reached by this gentleman, Mr. Sidio, in his report.

Thirdly, may the record clearly show that the Public Health Service engineers have made little or no independent investigation of their own here. From his own statement, all of the data contained in these two reports dated August 1962 and January 1963, is based on records in the Attorney General's office in the State of Maine, which appears there as a public record by virtue of the court order of the Superior Court of Equity of Androscoggin County.

So we have a situation where Mr. Sidio would not even be able to prepare a report if the State of Maine had not furnished this information, and there would have been no basis for the Secretary to call this conference. That illustrates the soundness of our legal position here questioning the jurisdiction to hold the conference; and, secondly, the very tenuousness of the Secretary's position in calling this conference.

MR. STEIN: Any comments from Maine?

MR. WEST: Not on the report.

MR. STEIN: Any from the interstate agency?

MR. BLAIR: Not at this time.

MR. STEIN: I wonder if you will turn to Page 28 of your report? Would you modify that conclusion in any way by your 1962 analysis, or would you say that is about the same?

MR. SIDIO: Would I modify these?

MR. STEIN: Or would you say it is substantially the same?

MR. SIDIO: No, I would not modify it.

MR. STEIN: Mr. Rogers, do you have any further statement?

MR. ROGERS: Not on this.

MR. STEIN: Do you have further statement to make on this part of your presentation?

MR. ROGERS: I would like to call on the Federal agencies present, but not on the Public Health Service.

MR. STEIN: All right. Would you do that?

MR. ROGERS: We have no further statement to make from the Public Health Service, but we have invited several Federal agencies, and I would like to introduce some of these people. If they have statements to make, I would like them to come up and make their statements.

I would like to indicate also we had the transcript of the September 24, 1962, conference entered in the record, and statements were made at that particular conference by several of the Federal agencies.

We have Mr. W. A. Slagle, Jr., with the Army Corps of Engineers, New England Division. Would you like to add any comment at this time?

MR. SLAGLE: No, sir, Mr. Rogers. I would just like to be an observer and answer any questions to the best of my ability, but I have no statement to make at this time?

MR. ROGERS: Fine. Mr. Slagle did make a statement at the September 24 conference.

I believe we have representatives of the First Naval District. Captain Kenneth Abplanalp.

Do you have a statement, Captain?

CAPTAIN ABPLANALP: I would like to make a brief one.

MR. ROGERS: All right, Fine. Come up, please, Captain.

STATEMENT OF CAPTAIN KENNETH C. ABPLANALP, CIVIL ENGINEER CORPS, UNITED STATES NAVY, REPRESENTING THE COMMANDANT OF THE FIRST NAVAL DISTRICT

CAPTAIN ABPLANALP: Mr. Stein and Mr. Rogers: My name is K. C. Abplanalp, Civil Engineer Corps, United States Navy. I represent the Commandant of the First Naval District.

At the risk of repeating something that was said at the previous meeting, but all of us were not here then, I would like to comment briefly about the Navy's position in this matter.

In the first place, the Navy is interested in these hearings because we have a Naval Air Station on the shores of the Androscoggin River immediately above its confluence with the Kennebec River at Merrymeeting Bay, and we thank you for the invitation to attend the conference. In established Navy policy we attempt to manage and conserve our natural resources on lands owned by the Navy. We also adhere to the established criteria for health, sanitation, and safety standards. We don't wish to get involved in any way in any differences between the States and the Federal Government. On our part, we have the sewage plant operating to take care of our wastes. It is a primary system only at this time. We have sedimentation tanks and sludge digestion tanks and sludge drying beds, and we chlorinate our effluents.

This is satisfactory, I understand, at the present moment. If the criteria for discharge of wastes into the river are established at a higher level, we will then take steps to meet these criteria.

I am not a lawyer, and at the risk of reading a portion of this law, I would like to read Section 9, the first sentence only, because I believe it is a precise statement of the Navy's position:

> "It is hereby declared to be the intent of Congress that any Federal Department or agency having jurisdiction over any building, installation, or other property, shall in so far as practicable and consistent with the interests of the United States, and within any available appropriations, cooperate with the Department of Health, Education, and Welfare and with any State, or interstate agency, or municipality having jurisdiction over waters into which any matter is discharged from such property, in preventing or controlling the pollution of such waters."

Thank you very much.

MR. STEIN: Thank you.

Are there any questions or comments?

(No response.)

MR. STEIN: If not, Mr. Rogers.

MR. ROGERS: The third agency represented is the First Coast Guard District, and I believe Lieutenant Norman West is here representing the Commandant.

Do you have a statement?

LIEUTENANT WEST: I have no statement to make. I am just here as an observer. Thank you for the invitation.

MR. ROGERS: All right, sir. Thank you for coming.

The fourth agency is the Department of the Interior, represented by Mr. Mark Abelson.

Do you have a statement?

MR. ABELSON: No, I have no statement. At the previous conference one of the bureaus of the Department, the Bureau of Sport Fisheries and Wildlife, made a statement which is in the transcript you have mentioned, and whatever statements they made, still hold.

MR. ROGERS: All right. This was a letter read into the record -- a report that had been submitted in letter form to the Department of Health, Education, and Welfare.

Do we have a representative from the Department of Agriculture?

(No response.)

MR. ROGERS: Any other Federal agencies?

(No response.)

MR. ROGERS: I believe this is all the Federal agencies that are represented, Mr. Chairman.

This would conclude then the Federal portion of this presentation.

MR. STEIN: Thank you.

I wonder if at this time we could hear from the State of Maine?

STATEMENT OF GEORGE C. WEST, DEPUTY ATTORNEY GENERAL, THE STATE OF MAINE

MR. WEST: Any time you are ready, Mr. Chairman.

I am George C. West, Deputy Attorney General of the State of Maine.

This is not an occasion on which attorneys are presenting a brief to the law courts or the appeals court and arguing against each other. However, Mr. Kuh, one of the attorneys for the Department of Health, Education, and Welfare, has seen fit to make certain statements, and I feel it is incumbent upon me at least to express my opinion on the matters which he stated.

He discussed at some length in his statement certain verbal notices that were given to the Maine Water Improvement Commission and the corresponding commission in New Hampshire. I am advised by the Chief Engineer of the Maine Water Improvement Commission that certain statements made by Mr. Kuh relative to verbal notices of future enforcement conferences are not correct. Mr. Kuh was apparently misinformed by personnel in his own Department.

My second comment is, that as I recall Mr. Kuh's statement, he decried the emphasis placed on the word "enforcement" and said that it didn't have the meaning which was attributed to it. To my knowledge in thirty-one years of the practice of law, "enforcement" has had but one meaning, and that meaning is a method of forcing a person to do what the forcer believes to be proper. That is a general definition of enforcement. I have never seen any law in which the word "enforcement" was used where it didn't mean that, and I can't see why it won't mean that in this law.

At the same time, he decried the emphasis placed on the word "enforcement", both Mr. Stein, the Chairman, and Mr. Kuh, placed great emphasis on the word "shall" in Section 8(c)(1), where it provides that "the Secretary shall call a conference." They would have everyone believe that "shall" is always a mandatory word. I know that most laymen think that, and I know many attorneys always take that position. However, I would disagree on the premise that Mr. Kuh used that it is always mandatory. There are many instances in which courts have interpreted the word "shall" as being directory, and not mandatory. In my opinion, after studying this Act the Secretary did not have a mandate from Congress to discuss pollution matters with State agencies only by means of enforcement procedure. I think that the interpretation which the attorneys place on the word "shall" is incorrect, but that they interpret the law for the Secretary as they have to do. I have been in their position and I know the situation, but I feel I have the right to disagree.

I will now proceed to my statement.

The State of Maine regrets that the Department of Health, Education, and Welfare has felt impelled to invoke the enforcement provisions of the Federal Water Pollution Act without any attempt to hold prior consultation with the State Water Improvement Commission.

The Federal Department having invoked the enforcement provisions of the Act, the State can do nothing else but question the jurisdiction of the Department to consider, at this time, pollution of the Androscoggin River. The Department having started first with a legal weapon, the State must counter with a legal weapon. The Department has left us no other alternative.

There are two bases on which this challenge of jurisdiction is made: (1) The State of Maine questions the right of the Department to initiate the type of action it has undertaken concerning the Androscoggin River. (2) The State of Maine questions the validity of the conferences called by the Secretary on September 24, 1962, and February 5, 1963.

(1) The right of the Department to initiate the type of action undertaken concerning the Androscoggin River:

We first call attention to section 1, which reads:

> "Section 1. (a) In connection with the exercise of jurisdiction over the waterways of the Nation and in consequence of the benefits resulting to the public health and welfare by the prevention and control of water pollution, it is hereby declared to be the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution, to support and aid technical research relating to the prevention and control of water pollution, and to provide Federal technical services and financial aid to State and interstate agencies and to municipalities in connection with the prevention and control of water pollution. To this end, the Secretary of Health, Education, and Welfare (hereinafter in this Act called the 'Secretary') shall administer this Act. (b) Nothing in this Act shall be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States."

This section very clearly spells out the policy of Congress that the primary responsibility and right to control and prevent pollution is in the individual States. Further, that the role of the Federal Government is "to support and aid technical research . . . and to provide Federal technical services and financial aid to State and interstate agencies . . ." Thus is spelled out the limits within which the Department may act. In Section 1 (b) it is definitely stated that this Act shall not "be construed as impairing or in any manner affecting any right or jurisdiction of the States . . ."

Section 2 also bears out this policy of Congress by its wording. It speaks of "in cooperation . . . with State water pollution control agencies and interstate agencies . . . prepare (ing) or develop (ing) comprehensive programs." Further, "The Secretary is authorized to make joint investigations with such agencies . . ."

All of which, when read with section 1, indicates a very clear intent of Congress that the States will continue to have the primary responsibility for preventing and controlling pollution. The role of the Department is to provide support, both financial and technical, on a joint cooperative basis with the State and interstate agency.

The sovereign States of Maine and New Hampshire have the responsibility with the New England Interstate Commission to control water pollution of interstate waters. Congress has relegated the Department to a cooperative role in pollution matters. The Department is not the dominant and motivating force which will lead the States. Rather, the Department shall follow the lead of the States and when needed lend the type of assistance requested. Such is the decree of Congress and we only ask the Department to recognize it.

(2) The validity of the conference held at Portland, Maine, on September 24, 1962, and this conference now held at Portland on February 5, 1963:

The only basis of law for the holding of conferences is contained in Section 8 (c) (1) of the Federal Water Pollution Control Act. This provision of the law calls for such a conference "when requested by the Governor of any State or a State water pollution control agency, or (with the concurrence of the Governor and of the State water pollution control agency for the State in which the municipality is situated) the governing body of any municipality, the Secretary shall, . . . call promptly a conference . . . " To the knowledge of the State of Maine neither the Governor of Maine or of New Hampshire nor either State water pollution agency has requested such a conference. Neither Governor nor State water pollution agency has concurred in such a request from any municipality in either State.

Another provision of this same section provides:

> "The Secretary shall also call such a conference whenever, on the basis of reports, surveys, or studies, he has reason to believe that any pollution referred to in subsection (a) and endangering the health or or welfare of persons in a State other than that in which the discharges originate is occurring."

The pollution referred to in subsection (a) is that of interstate or navigable waters "which endangers the health or welfare of any persons."

In order for such a conference to be called by the Secretary, certain conditions precedent must have occurred.

1. Reports, surveys or studies must have been made; and

2. The Secretary must have "reason to believe" that certain pollution is occurring; and

3. This pollution must endanger the health or welfare of persons; and

4. In a State other than that in which the discharge or discharges are occurring.

As applied to the present situation, the Secretary must have "reason to believe" that discharges into the Androscoggin River in New Hampshire are endangering the health or welfare of persons in Maine. This "reason to believe" must be substantiated by reports, surveys and studies.

Any pollution occasioned by discharges, in Maine, into the Androscoggin River, is not an element to be considered in determining whether to call a conference, unless such pollution endangers the health or welfare of persons in New Hampshire. We most seriously question such a conclusion.

We also seriously question any conclusion reached by the Secretary that pollution in the Androscoggin River originating in New Hampshire is "endangering the health or welfare of persons" in the State of Maine.

The State of Maine, however, without waiving its challenge to the jurisdiction of the Department of Health, Education, and Welfare, is willing to advise this Department of its plans toward the Androscoggin River. This will be presented in the form of a statement to be read into the record by Raeburn MacDonald, Chief Engineer, Water Improvement Commission of Maine.

MR. STEIN: Thank you, Mr. West. Will you wait just a minute?

Are there any questions or comments?

(No response.)

MR. STEIN: I think it is a very excellent statement, and a clear statement of your position on the issues.

Do you want Mr. Raeburn MacDonald to come up?

MR. WEST: Yes. Any time.

STATEMENT OF RAEBURN MACDONALD, CHIEF ENGINEER, MAINE WATER IMPROVEMENT COMMISSION

MR. MACDONALD: Mr. Chairman and Ladies and Gentlemen: I will try to get through this paper. I don't know whether I will make it or not. I have a very bad cold, and whenever I put two sentences together today, I have gotten into trouble; but we will start out and see how far I go.

This is an official statement of the Water Improvement Commission, which is the official organ of the State of Maine authorized to carry out a pollution control program.

The statement which I will read sets forth, in addition to the statement of Mr. West, the position of the Maine Water Improvement Commission with respect to the legal action initiated against it by the Department of Health, Education, and Welfare. It is also intended to explain the place which the stream in question occupies in the pollution control program of the State of Maine.

The Maine pollution control program depends upon the classification system for the reclamation of waters, and this classification, which is in effect the determination of the usages to which a waterway can best be put for maximum benefit to the people of Maine, is made by the legislature. To date this program has embraced a great portion of the State's waterways. As a matter of fact, the only stream besides the Androscoggin left unclassified is the Penobscot, on which the field work is nearly finished, and the classification submission planned for 1965. Tidal water classification will be completed in this legislature except for a small mileage in the Penobscot Bay area.

The Commission does not feel that this accomplishment indicates an idle agency, since the provision for reclamation of waters did not appear in the law until 1953. The State government has, to further implement its program, provided monetary aid for preliminary planning of sewage works and for construction at the same contribution percentage as Federal aid is given.

The fact that the Androscoggin River has been and is under control of the courts was the reason for its low priority in the intrastate and interstate program. Improvements in its status were continually being made and if the health or welfare of Maine people had been placed in jeopardy, the Attorney General of Maine was provided with ample facilities under the court decree to bring about a review and, if warranted, correction. At the time, in 1961, that the Kennebec River work was completed, the Commission, because of the involvement of the two streams -- and by that I mean the Androscoggin and the Kennebec -- considered the advisability of launching a survey of the Androscoggin as the next step, but at the time changes which would radically affect the river's pollutional load were either underway or imminent, and it was decided to proceed instead with the Penobscot River study.

The Water Improvement Commission has been able to keep abreast of conditions on the Androscoggin situation through the offices of the Court-appointed River Master. The agency also keeps in touch with events affecting the municipal situation by direct contact. For instance, preliminary planning on the part of municipalities in anticipation of classification and its inevitable requirements with respect to sewage treatment is proceeding at a very reasonable rate. Of the twelve municipalities having significant sewerage systems, three have already completed their first stage of planning, one such planning project is currently underway, and we anticipate the start of at least four more during the coming season.

As far as classification of the Androscoggin is concerned, a definite schedule exists, calling for completion of studies and submission for classification of Androscoggin tributaries of an interstate nature to the 1965 legislature, and for submission of the main stem for classification to the 1967 legislature. Tributaries wholly within Maine have generally been classified previously and necessary abatement projects have been undertaken.

In the entire State program and in the Androscoggin Basin as well, the rate of availability of aid will be much in the picture in the coming decade. Under present conditions the construction of municipal plants necessitated by classifications already in effect consume the aid available over the next ten years. Any crash program on the Androscoggin or any program which forced the acceptance of projects here out of turn with the overall program would upset the abatement schedule as it is now developed.

A reasonable abatement schedule for the Androscoggin would probably win legislative approval with little trouble. The relationship of the legislature and the Commission has shown steady improvement since the early days of classification, a statement borne out by the acceptance in 1961 of the Commission's program for the Salmon Falls - Piscataqua River, which now appears to be nicely on schedule. This was a project conceived, studied, and carried out by the two States of Maine and New Hampshire within the framework of the New England Interstate Compact.

It is our considered opinion that the Water Improvement Commission manpower and equipment resources available for studies of the Androscoggin are entirely adequate, as they proved to be on other major streams. We will be in a position to commit one trailer laboratory in the spring as soon as sampling can be carried on, and plan to do so with the other trailer arriving on the scene later in the season. Both teams will be composed of personnel with considerable background in the pulp and paper industry.

I believe also that progress in lightening the pollutional load of the Androscoggin under the court decree should be cited, and to do so I am going to review, first of all, the summary of accomplishments as set forth in the Report to the Androscoggin River Technical Committee by Dr. Walter A. Lawrence. The complete text of this report will be submitted with the other material. The summary, insofar as it pertains to the program, is as follows:

1. Review of the legal history and the control procedures.

2. The outstanding accomplishments have been:

    a. Elimination of a serious odor nuisance;

    b. Reduction of the sulphite waste liquor pollution discharge to the river to 15 percent of the 1941 load; and

    c. Additional reduction in 1961 to lower the discharge percentage to about 5 percent of the 1941 tonnage.

3. Expenditures for nitrate testing, and compliance with control requirements exceed $2,000,000. Over $20,000,000 have been spent to provide in-mill process changes to reduce the pollution discharge to the river.

4. No public money has been employed either for control or reduction of pollution. All costs have been borne by Brown Company, Oxford Paper Company and International Paper Company.

Major in-mill changes which have been put into effect are items of interest well worth noting in addition to the summary quoted above. These changes were all applicable to Maine installations only and changes made in the New Hampshire mills are not noted.

I had better mention here, in addition, that this summary I just read included the Maine mills.

In July of 1959 the Oxford Paper Company closed permanently a sulphite mill which had a capacity of 160 tons per day. The installation was dismantled entirely in order to make room for the sulfate mill scheduled to take its place. This was a significant improvement because of the far lower polluting potential of the kraft mill.

In 1960 Oxford's Island Division mill with a sulphite capacity of 125 tons per day was shut down permanently. The aggregate of these changes plus the use of lagoons at another location have reduced the sulphite load discharged under critical conditions, that is, summer flows, to about two percent of that discharged during the summer of 1941.

Suspended solids loads have also been reduced by the installation of bark burners and disposal systems, improved screens, whitewater treatment, groundwood recovery and other items. More than $800,000 has been invested in this equipment alone and it removes annually about 18,000 tons of solid material.

This program is continuous, orderly, and progressive. It is not complete and further reductions in this area are anticipated in 1963 both in the field of solids removal and other reductions. It is interesting to note the rate at which expenditures have been made over the years:

1946	$38,000	1957	$ 9,000
1948-50	$87,000	1960	$ 11,000
1949	$72,000	1961-62	$260,000
1956-57	$27,000	1962	$223,000

In closing, the Water Improvement Commission wishes to reiterate its stand that machinery at State and interstate level exists to produce an orderly interstate program for control of pollution in the Androscoggin. The uses of waterways in each of the States involved is a matter which can best be determined by the respective State legislatures as now provided by statute. It is not necessary to infringe their right to do so, and, therefore, it should not be done.

MR. STEIN: Thank you.

Are there any questions or comments?

MR. ROGERS: I have just a couple of questions, Mr. MacDonald.

First of all, the reduction you are talking about down to 5 percent of the 1941 load, this applies only to sulfite waste material?

MR. MACDONALD: That is right. I think it states that in here.

MR. ROGERS: It does not apply to all of the organic load?

MR. MACDONALD: No. It applies to the sulphite mill load.

MR. ROGERS: And that only?

MR. MACDONALD: Yes.

MR. ROGERS: In quoting some of those accomplishments, were their accomplishments listed in that same report of what had been done in the State of New Hampshire at the Shelburne Mill?

MR. MACDONALD: No. The first accomplishments that I listed included, of course, those. The second series, when I come down and start "1. Review of the Legal History," and so forth, that is both States.

MR. ROGERS: Both States?

MR. MACDONALD: That series. Then the series that starts, "Major in-mill changes. . ." is Maine only.

MR. ROGERS: You just referred to the Maine changes only?

MR. MACDONALD: That's right. And I reiterated that in speaking, but it is here, and in reading it you will have no trouble.

MR. STEIN: Do you have any other questions?

MR. ROGERS: No.

MR. STEIN: Thank you, Mr. MacDonald.

Does that conclude the presentation of the State of Maine?

MR. WEST: As far as I know.

MR. STEIN: May we hear from the interstate agency?

STATEMENT OF LACHLAN F. BLAIR, CHAIRMAN, NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION

MR. BLAIR: Chairman Stein, Conferee Rogers, Representatives of Maine and New Hampshire, and Ladies and Gentlemen:

I come before you as a layman, not a lawyer, not a sanitary engineer. My name is Lachlan F. Blair. I am one of five Commissioners, from the State of Rhode Island, and I am currently Chairman of the New England Interstate Water Pollution Control Commission.

I should like to present the official position of that interstate commission and to follow it with a few personal comments, which I trust will be helpful in focusing on the purpose of these proceedings.

The New England Interstate Water Pollution Control Commission is an agency of the New England States and New York State. Its purpose is to administer a compact for the control of pollution of the interstate waters of the area -- this compact having been approved by an Act of Congress in 1947 (Public Law 292 of the 80th Congress) and ratified by the legislatures of the seven States. There are seven States concerned in this issue through the invitation from the Secretary to this interstate commission. This is a matter which concerns far more than just the States of New Hampshire and Maine. Our Commission is directed under the compact to establish a system of classification for interstate waters according to highest use based on physical, chemical and bacteriological standards. The signatory States agree to prepare proposed classifications for their interstate waters and submit them to the Commission for approval. Upon approval it is agreed that each State, through its pollution control agency, will establish the necessary programs of sewage and industrial waste treatment for compliance with the classifications.

Since the organization of the Commission, New Hampshire and Maine have enacted pollution control laws providing for the classification of all their waters by their legislatures. These laws are based on the New England Interstate Water Pollution Control Commission water quality standards. The role of the New England Interstate Water Pollution Control Commission is to coordinate the work of the States' involved and to approve proposed classifications. Following classification by the legislatures, the State agencies issue orders to municipalities and industries to construct the necessary treatment works to meet the classification requirements. We thus have in the area effective State laws and a compact agency to coordinate the State's activities where interstate waters are involved.

Accomplishments in pollution control to date and plans for the future are matters of record and have received the praise of public and press. Annual reports of our Commission which have been made available to the Department of Health, Education, and Welfare, describe our programs concerning the Androscoggin River.

The long-range program of classification and pollution abatement, which provides for the various degrees of water quality necessary for the proper maintenance of social and economic well-being -- and you cannot deal with water quality without dealing with jobs -- includes each of the interstate basins in the area. The classification of the waters of the Piscataqua River in 1961 by the New Hampshire and Maine legislatures, with its resulting pollution abatement program, is an excellent example. Classifications have been approved and adopted for nearly 90 percent of our waters covered in our compact, and studies with a view to classification are completed or under way in the remainder. The construction of sewage and waste treatment works at an estimated cost of over $250 million in the past decade has materially lessened the pollution of our waters -- only 16 percent of the sewered population in this compact area remains to be served by the construction of sewage treatment plants. These achievements can be attributed to the cooperative efforts of the States and their communities and industries over the years.

Regardless of this impressive record and without prior consultation with the New England Interstate Water Pollution Control Commission or the States, the Secretary of Health, Education, and Welfare, last September initiated enforcement proceedings on one of our interstate rivers, the industrial Androscoggin.

I would like to insert a personal note here, just to give you an indication of the widespread impact of this action by the Secretary. I read of it first in an airplane over the Atlantic in the Paris edition of one of the major New York papers. The lead line, as I recall it, said that the Secretary had initiated enforcement action against the States of Maine, New Hampshire and some other States, and there were two rivers mentioned and the agency of which I was the chairman. The tenor of the article was that these States and the Interstate Commission were charged with a rather vague offense. This, I think -- I will have some later comments on that aspect of the proceeding later.

The matter of the classification of the Androscoggin River was first discussed by the Commission's Technical Advisory Board in 1957 and at most subsequent meetings. Representatives of the Public Health Service customarily participated in the meetings of our Technical Advisory Board.

The classification of the Androscoggin River was originally given, and continues to have a low priority for several reasons. Under a court decree of 1948, an Androscoggin River Administrator or River Master was appointed and given the necessary regulatory authority to prevent a nuisance condition from occurring in the river; the legislatures of New Hampshire and Maine have not requested classification recommendations for the Androscoggin because other river and coastal areas have been deemed to have more pressing pollution problems and should be classified before the Androscoggin; and without the pressure of classification orders several Androscoggin municipalities and industries have undertaken waste treatment studies and remedial works. Furthermore, grant funds for sewage treatment works construction have been allotted for the next decade to municipalities under orders to conform to classifications and are not available for Androscoggin communities. It is, therefore, clear that neither the States nor the New England Interstate Water Pollution Control Commission have been remiss in their duties and responsibilities in connection with the Androscoggin River. The present status of the Androscoggin, according to the New England Interstate Water Pollution Control Commission's schedule for 1963, is for studies by New Hampshire and Maine in preparation for legislative classification of interstate tributaries in 1965 and the main stem in 1967.

The Commission is truly disturbed by this enforcement action on the part of the Secretary of Health, Education, and Welfare. In view of our regional program for pollution abatement and the favorable climate which has been established in New Hampshire and Maine toward pollution control in recent years, this action is being interpreted as an unwarranted intervention with the orderly State procedures for accomplishing pollution control and water quality improvement.

Moreover, the secrecy which enveloped the preparations for these proceedings was a violation of the cooperative spirit which the New England Interstate Water Pollution Control Commission and the States assumed they had established with the Department of Health, Education, and Welfare. This cooperation was based on the Congressional policy expressed in the Federal Water Pollution Control Act, viz: to recognize the primary responsibilities and rights of the States in controlling water pollution, to encourage the establishment of interstate agencies for coordination of the States' activities, to provide technical and financial assistance to State and interstate agencies, and to enter into enforcement procedures when the State and interstate pollution control agencies are unable or unwilling to cope with a situation. In this connection, the regional representatives of the Department of Health, Education, and Welfare have been the guests of the Commission at all of its meetings until last September and were cognizant of our plans, including the status of the Androscoggin River in the program. Unfortunately it seems to have become necessary for the Department of Health, Education, and Welfare to instigate enforcement proceedings on some New England river in order to publicize the geographical coverage and importance of its activities.

Under the Federal Water Pollution Control Act the Androscoggin enforcement proceedings are directed only against New Hampshire industries and communities -- not those of Maine. If these proceedings are carried to further stages they can only result in court action involving the New Hampshire sources of pollution. This certainly is a confusing and improper approach to a problem which involves Maine as much as it involves New Hampshire. The problem must be solved on a basin-wide basis and through interstate cooperation, for which the necessary technical and legislative means and machinery have been provided by State laws.

The Commission concludes that the enforcement action now being initiated can only result in disruption of the well-planned programs of New Hampshire, Maine and the New England Interstate Water Pollution Control Commission, in a loss of public confidence in State and interstate agencies and their programs, and possibly an abandonment by communities and industries of their pollution control plans under State guidance while they await Federal action through the courts.

Federal-State cooperation in water pollution control is essential and to that end Federal enforcement procedures should not be invoked without full consultation with the State and interstate agencies to determine the nature and extent of their programs in the effected areas and without allowing an opportunity to carry out these programs. Therefore, enforcement proceedings on the Androscoggin River should be terminated to permit the States and the New England Interstate Water Pollution Control Commission to continue in an orderly fashion their programs to restore the waters to their best uses as determined by the legislatures, with careful consideration of the economics and all other local factors involved.

As background to that statement I should like to report or emphasize again that the interstate commission is one which, although set up by Congress in an interstate compact, in practice has derived its procedures primarily for the purpose of coordinating State actions. In discussion of these enforcement proceedings, our Commission has taken a unanimous vote empowering me to do whatever is necessary in the course of further proceedings in respect to the Androscoggin as long as these actions are consistent with the actions of the two primarily interested States of New Hampshire and Maine.

I am going to take some liberties, if I may, Mr. Chairman, and add a few personal comments which are my views; and although I am bound in an official position by the positions of the two States, and I have no wish here to prejudice the legal positions of those States and I, as you can tell, am not here as a conferee since the two States are not, I would like to make some comments.

We seem clearly to have differences of opinion among both the lawyers you heard this afternoon and the engineers. I am neither. I am confused, and I think that it would serve our purposes well to try to summarize that confusion.

I think it is dreadfully unfortunate that this has degenerated into what seems to me clearly to be an adversary proceeding, despite Chairman Stein's protestations to the contrary; and, because of the poor preparations, and I would say inept handling of public agency and community relations by the Department of Health, Education, and Welfare, the water pollution control programs in this area have been prejudiced, and I think set back.

The legalistic turn of affairs here, far too legalistic in my opinion, stands in the way of solving the basic problems of pollution.

I am a Democrat. It pains me to have to criticize an agency of the Federal Administration, which in many other ways I admire; but, I think based on a fair number of years of experience in State government and in service to other levels of government, I believe that the handling of this matter has been one of the worst in an improper use of the Federal role in assisting States in the solution of problems.

I would point out that the procedures used by the Department of Health, Education, and Welfare are inconsistent with the standard operating procedures of other Federal aid programs cited by Mr. Quigley in his remarks in Chicago, such as the Bureau of Public Roads, and the Hill-Burton program.

I should hope that out of this proceeding, if nothing else, will come an overhaul of the methods for dealing with what the Department chooses to call enforcement actions.

I think, and I am deliberately speaking here now in order that these comments may be in the record and may find their way further up the line than have similar views expressed in informal meetings succeeded in doing -- I can see that certainly there will be need to clarify the law in regard to enforcement operations.

I interpret some of the legalistic or legal matters that were presented here -- and I again point out that this is my personal opinion -- as precluding, without invading the prerogatives of the legislatures of Maine and New Hampshire, precluding any presumption by the Federal agency as to what is an appropriate quality of water in the Androscoggin River.

I feel also -- and this is based on considerable experience in dealing with boards, committees, and group type operations -- my understanding of what a conference ought to be is that it is hardly appropriate for the chief cop to preside at the hearing.

I think that there is a substantial area of disagreement, some of it semantic, as to whether the kind of conference that was intended by Congress is an informal one or this type of legal proceeding that this one has become.

We have questioned, and in the record is my earlier statement questioning, whether this can be regarded as a conference. That, I think, will make it rather difficult if the Secretary should choose to make recommendations upon what he chooses to describe as a conference.

Several references have been made to a meeting at Portsmouth at which we tried to work out with the representatives of the Department an understanding as to what conference proceedings should be. The proceedings proposed we found to be quite unacceptable. We made little impression -- it is my impression of the conclusion of those discussions -- as to whether there was any chance of altering the procedures without substantial alteration. Of course, we could not participate officially, as conferees are defined, in the material submitted by Mr. Rogers in Portsmouth. In fact, legally it seems to me it would be highly questionable as to whether anyone could participate under the definition of a conferee as described in the Health Service's definition. This would be an official representative authorized to commit his agency. Certainly no one from the State of New Hampshire or the State of Maine is authorized to commit the legislatures of those States.

There seems to be a clear variance of opinion here as to whether pollution exists -- not as it can be observed by the layman, but whether it exists as it is defined in the law, and whether the health or welfare of people in Maine is in danger.

I think that these are questions which can only be resolved by legal authority, and are ones that I shall not try to cope with.

I would like to recall the opening statements of Chairman Stein at the first session last September, in which he made reference to a Supreme Court opinion handed down, I believe, in May of 1921, that of New York Bay, in which the Supreme Court suggested that the kinds of problems -- and here was a case in which an agency in New Jersey was constructing a treatment plant and proposing to discharge material into New York Bay and the State of New York took issue with it -- the technicalities involved in determining whether this effluent from the New Jersey plant would be such as to be harmful to interests in New York, were judged by the United States Supreme Court at that time to be so difficult of dealing with them adequately that it recommended that matters of this sort be dealt with in conference procedure, and were inappropriate for resolution in any court of law, I believe the language was used, whatsoever.

What I feel is needed here is an entirely fresh start to cope with the problems of the Androscoggin without any of the entanglements and legal complexities that have grown out of what is to me, if I can quote Assistant Secretary Quigley, "a gross misunderstanding and complete misrepresentation of what is meant by conference technique."

I think that what is needed is a fresh start in an atmosphere of cooperative resolution, cooperative effort, to solve what is a genuine problem. I think that the only way this can be done is for withdrawal and termination of these proceedings, whereupon I will be happy to call upon the Interstate Commission to provide a proper framework for the resolution of this type of interstate problem.

Thank you.

MR. STEIN: Thank you, Mr. Blair.

Are there any questions or comments?

MR. ROGERS: Mr. Stein, I would like to ask one question of Mr. Blair.

I believe both you and Mr. Macdonald have mentioned this ten-year program where you plan to use construction grant funds. I would like to read just from Section 6(c) (4) of the law:

> "No grant shall be made for any project under this section unless such project is in conformity with the State water pollution control plan submitted pursuant to the provisions of Section 5 and has been certified by the State water pollution control agency as entitled to priority over other eligible projects on the basis of financial as well as water pollution control needs."

I believe you have already established the ten-year program. Is this based on water pollution control needs?

MR. MACDONALD: Yes.

MR. ROGERS: And if I understand it, this does not include the Androscoggin?

MR. MACDONALD: Not at this time.

MR. STEIN: If you want this off the record, I will be glad to have it off the record.

(Discussion off the record.)

MR. STEIN: I think we can probably try to get together and summarize, but first, before we do that, I think, Mr. **Blair**, you have some very interesting remarks. I think it might be noted that we have had many other conferences involving twenty-four States and the District of Columbia. I think the record will show that this is the only one where we have had what you term a legalistic discussion.

Now, it just, just, just might be possible that since the Federal Government had the same personnel and the same team in all these conferences, and we didn't have this technical, legalistic discussion, it just might not be us.

MR. BLAIR: May I comment?

MR. STEIN: Yes.

MR. BLAIR: It just -- underline "just" -- might.

MR. STEIN: Right.

Again, you talked about the Portsmouth meeting. I do think, sir, Mr. Quigley's remarks pointed out, and we pointed out the things we have to do in a conference are governed by law and governed by general procedure. As I pointed out, among other things at Portsmouth, we are a public body, an agency doing the public business in a public manner, and we cannot sneak off into a little private dungeon and hold a conference with ourselves, with no one present. It just is not authorized by our law.

Now, just before we summarize, we do have a representative of Senator Muskie in the room. Don Nicoll is here and he would like to make a statement.

Mr. Nicoll.

STATEMENT OF DONALD E. NICOLL,
ADMINISTRATIVE ASSISTANT TO
SENATOR EDMUND S. MUSKIE, UNITED
STATES SENATOR FROM THE STATE
OF MAINE

MR. NICOLL: Mr. Chairman, my name is Donald E. Nicoll, Administrative Assistant to Senator Muskie, from the State of Maine.

Mr. John P. Jabar, the field representative of Senator Muskie, and I, are here at the Senator's direction as observers.

Senator Muskie has a threefold interest in the proceedings today. First, as a citizen of Maine he is concerned with the progressive and positive improvement of our public waters. As one who grew up in the Androscoggin River Valley, just upstream from Rumford, he has a personal interest in the condition of the Androscoggin.

Second, as a member of the Senate Committee on Public Works, as a co-sponsor of the Water Pollution Control Act Amendments of 1961, and as the principal sponsor of S. 649, the Water Pollution Control Act Amendments of 1963, he has a strong interest in the administration of this Act, and in the proper achievement of the Congressional goals for the protection of public health or welfare through pollution abatement on interstate and navigable waters.

Third, as Chairman of the Senate Subcommittee on Intergovernmental Relations, he is concerned with improved cooperation between the Federal Government and the State governments on such problems of mutual interest as water pollution control.

Senator Muskie regards the conference approach to water pollution abatement as a sound and constructive way to stimulate and advance cooperation in this area by the disclosure of the facts and the exchange of ideas. It had been his hope that today's session would be the first step toward a cooperative program on the Androscoggin. In several respects that hope has not been realized, and this is regrettable. We may still hope that the obstacles to cooperation which were raised today will be removed without the necessity of recourse to enforcement proceedings.

That is all.

MR. STEIN: Thank you, Mr. Nicoll.

Are there any comments or questions?

(No response.)

MR. STEIN: Before I summarize, I would like to ask Mr. Rogers one question: On the basis of the information here, do you have any questions as to the validity of the conclusions in Mr. Sidio's report?

MR. ROGERS: No, I do not have.

MR. STEIN: If you will let me attempt to summarize the proceedings here --

MR. KALINSKI: Excuse me, Mr. Stein. May the record show that New Hampshire cannot concur in any summary you may make, and it is only your own digest of what has happened.

MR. STEIN: I think you have made the position abundantly clear, but I will be happy to have it in the record again.

MR. KALINSKI: I know I have, Mr. Stein. I hope I have not imposed on you.

MR. STEIN: Not al all, sir. The record is always open for anything you consider relevant.

MR. BLAIR: And may I also point out any implications in the report of Mr. Sidio which presume or assume a poor water quality in that stream are inappropriate for judgment by a Federal agency?

MR. STEIN: Are there any other comments:

(No response.)

SUMMARY STATEMENT BY MR. STEIN

MR. STEIN: Let me try to summarize then. I think, as you well know, or at least I hope, in the United States we have a system of institutions which at least permits us to sit down and talk and, whatever the differences are, to arrive at a point of departure. I think all hands possibly will agree:

That the Androscoggin River is an interstate and navigable stream within the terms of the Federal Act. It was pointed out here and not disagreed with.

That the Secretary did call a conference on September 24, 1962, and February 5, 1963. The States questioned the validity of these conferences -- the States and the interstate agency. If you want to modify anything I say, I think you can.

The States and the interstate agency have not participated in the conference as conferees. I will use the term "conference" even though I recognize that the States take exception to that and may not recognize this as a conference. The States have not participated as conferees but just as participants, not sitting at the head table, but remaining in the audience.

I don't think we can come out, to say the least, with unanimous views. I think the purpose of the conference is pointed out with what is stated in the statute -- a determination of the occurrence of pollution of interstate and navigable waters subject to abatement under this Act; adequacy of measures taken toward abatement of pollution; and, the nature of the delays, if any, being encountered in the abatement of pollution.

The State of New Hampshire, through its representative, has indicated:

> "The Secretary has no jurisdiction to start enforcement proceedings against the State of New Hampshire under Section 8 of the Federal Water Pollution Control Act with reference to the Androscoggin River because of the provisions of New Hampshire Revised Statutes Annotated, Chapter 149, entitled 'Water Pollution and Disposal of Wastes', the provisions of Chapter 79 of the 1954 Revised Statutes of Maine dealing with water pollution, and the provisions of the New England Interstate Water Pollution Control Compact, enacted by the legislatures of both Maine and New Hampshire and approved by Congress, in the light of the specific provisions of Sections 1(a), 1(b) and 8(b) of the Federal Water Pollution Control Act, and the legislative intent of Congress expressed in the House Reports ..."

You had listed House Report No. 1446, but we can look them up.

MR. KALINSKI: It is in the record, Mr. Stein. There are several reports.

MR. STEIN: Yes. We will put in the record, if you don't mind, the citation of the above and from which Congress, because the House Reports do not have the same number in each Congress. That is not in the record.

MR. KALINSKI: It is readily available.

MR. STEIN: I think I know what reports you mean. I am just talking for the record. I didn't want to add anything you didn't have.

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"The legislatures" -- this is still New Hampshire's position --

"The legislatures of the States of Maine and New Hampshire have reserved to themselves by statute the right to classify according to use all surface waters in their respective states and have set forth a definite procedure for determining such classificiation. There exists a New England Interstate Water Pollution Control Compact, to which both Maine and New Hampshire belong, and which is dedicated to abate existing pollution. The Federal Water Pollution Control Act specifically states it to be the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States in preventing and controlling water pollution. It also specifically states that nothing in the Act shall be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters of such States. By this enforcement proceeding, the Secretary is attempting to determine what classification according to use the Androscoggin River is to be put in. This the States of Maine and New Hampshire have reserved by statute to themselves. The Secretary is therefore, without jurisdiction to act in this matter, and his actions in calling this conference are without sanction of law.

"The issue is not whether or not pollution exists in the Androscoggin River." * * *

"The issue here is whether the Secretary, under the guise of an enforcement proceeding under the Federal Water Pollution Control Act, can come in and tell the New Hampshire legislature how it must classify the Androscoggin River, and to what use such waters may be put by the State of New Hampshire. Such action by the Secretary amounts to a contravention of the clear intent and purpose of the Federal Water Pollution Control Act as specifically expressed therein, and represents an attempt to usurp and preempt rights the New Hampshire legislature has reserved to itself."

For Maine, Maine's position is:

"(1) The State of Maine questions the right of the Department (of Health, Education, and Welfare) to initiate the type of action it has undertaken concerning the Androscoggin River.

"(2) The State of Maine questions the validity of the conferences called by the Secretary on September 24, 1962, and February 5, 1963."

Maine also contends that any pollution occasioned by discharges, in Maine, into the Androscoggin River, is not an element to be considered in determining whether to call a conference, unless such pollution endangers the health or welfare of persons in New Hampshire. They most seriously question such a conclusion.

They also seriously question any conclusion reached by the Secretary that pollution in the Androscoggin River originating in New Hampshire is endangering the health or welfare of persons in the State of Maine.

For the New England Interstate Water Pollution Control Commission, I think that the position was that the conference was called without prior consultation; that there are more pressing problems in the New England area which have to be considered before the Androscoggin; classification of the waters of those areas has taken place; allocation of Federal grant funds has been made or attempted to be made for those areas, and that does not necessarily include the Androscoggin. The Commission is disturbed by the distruption of the favorable climate they had in pollution control in the Androscoggin and in the other rivers in New England, because of Federal intervention and the loss of public confidence in State agencies. They ask for a termination of the proceedings and they wish to disassociate themselves from any findings of interferences with water uses necessarily found in the report by Mr. Sidio, seeing that these uses can only be determined by the States and the interstate agency through the classification process.

MR. BLAIR: I think you meant inferences rather than interferences, did you not?

MR. STEIN: I meant interferences, but I will accept inferences.

MR. BLAIR: There is one major point which was not included in your summary, and that is the present status of the Androscoggin according to the New England Interstate Water Pollution Control Commission's current work program is for studies by New Hampshire and Maine in preparation for legislative classification of interstate tributaries in 1965 and the main stem of the Androscoggin in the legislative session of 1967.

MR. STEIN: Yes. I think that should be pointed out. I think we should also point out that this does not go for -- if you would, sir, I would put that in as a general statement that we can all agree to, and not necessarily just be attributed to the Commission.

I think we can also agree that cognizance is taken of the work done in both New Hampshire and in Maine to improve the water quality of the Androscoggin River.

I think also, however, we do have the report of the investigators of the Department of Health, Education, and Welfare. In the absence of any information to the contrary, I think that the representatives representing the Federal Department believe that pollution of the Androscoggin River caused by the municipal and industrial waste discharges is causing excessively high concentrations of oxygen-demanding organic matter.

It has depleted the dissolved oxygen content of the river to barely trace quantities below Rumford, in the Gulf Island Pool and in the Lewiston-Auburn area. Dissolved oxygen content was depleted below the desirable 5 mg/l from Gilead to below Lewiston and Auburn.

It caused excessively high densities of coliform bacteria.

It destroyed the esthetic value of the river from Berlin to the mouth.

It prevented development of fishery resources.

It caused a pollutional block preventing the passage of anadromous fish, and interfering with the use of the water for livestock water.

It contributed to the polluted condition of Merrymeeting Bay, resulting in the bay being closed to shellfish harvesting.

It caused the river to be of such low quality so as to prevent the potential development of municipal and industrial water supplies, and recreational uses.

The report goes on to say -- which the conferees here have no reason to disagree with -- that the pollution of the Androscoggin River at the New Hampshire-Maine State line is evident. Pollution originating in New Hampshire damaged the water quality at the State line, and the residuals of this pollution along with the added wastes in Maine, contributed to the degraded quality to the mouth in Merrymeeting Bay.

Pollution by Berlin and Gorham, and the Brown Paper Company at Berlin, in New Hampshire, constitutes interstate pollution, subject to abatement under the Federal Water Pollution Control Act, since the health and welfare of persons, in a State other than that in which the pollution originates, is endangered.

With reference to pollution in Maine, I think there are two aspects.

MR. BLAIR: Before you go on, I think each of the State agencies and our Commission have indicated some general reservations.

MR. STEIN: Yes.

MR. BLAIR: And I want to make it clear you are now summarizing the Federal report.

MR. STEIN: That is right, and this is the report which the Federal representatives have no basis on which to disagree with it at this time. We recognize, and the summary will show, that you do not associate yourself with the findings in this report, and that will be very clear.

With reference to Maine, there are two problems involved in this conference with Maine. By the way, before we do get to Maine, I wonder if the Navy representative is here. According to the new Act, Federal installations in the Androscoggin River are included in the conference stage of an action at this time, so they will be included.

With reference to Maine, I think we have to deal with the finding that deals with the causing of a pollutional block preventing the passage of anadromous fish. We heard from the Fish and Wildlife Service last time, saying if this pollutional block were removed, they would consider and had a program to put in the fish passage devices to get the anadromous fish up the river. We have heard from the representative of the Department of the Interior today saying that they had not modified their position.

MR. BLAIR: May I ask for a definition of anadromous?

MR. STEIN: Yes. We will ask the man who prepared the report, if you want to. Mr. Sidio.

MR. SIDIO: I think we have an expert biologist here who can give us a better definition.

MR. WEST: Mr. Sidio had it in his report.

MR. SIDIO: I will explain it, if you so desire.

MR. STEIN: I don't think really, Mr. West, we are in a legal case here. If we were it would be different. Mr. Sidio prepared or collated all of the evidence in this report. If we were going to put on evidence we would have a biologist put in the biological part of it, obviously, and qualify him as an expert witness. For the purpose of the conference, let us try to call the best man to answer the question. Mr. Mackenthun.

MR. MACKENTHUN: It is a fish that lives primarily in the sea and ascends fresh water to spawn.

MR. STEIN: There is another point.

MR. KALINSKI: Excuse me, Mr. Stein. Is there any necessity for you to go through all of this? I just question it. What is the reason for this?

MR. STEIN: Your remark will be put in the record and it will be considered by people who read the record, for what it is worth.

MR. KALINSKI: Again you are making a comment of the nature I referred to this morning. I am asking you a question. It is your conference, or proceeding, or what have you, and I am asking you if there is any necessity for this type of presentation, or what is the reason for it?

MR. STEIN: If it were not I would not make it. We are required to make a summary of the conference.

MR. KALINSKI: Oh, is that something that has to be done here? That is what I am asking.

MR. STEIN: I generally make this statement of our views out loud here so if there are any modifications or changes they can be made, and we have had some valuable ones come in.

MR. KALINSKI: I don't want to make any modifications or changes, but I would like to interrupt you, if you will allow me, to straighten out one word.

MR. STEIN: Yes. You have.

MR. KALINSKI: You referred to me as a participant here. I am not a participant here. I came here merely to state a legal position, and to make sure I will not dignify these proceedings by either being called a conferee, or participant, or what have you. These are your proceedings and your presentation, and New Hampshire does not concur in any of these things you are now reading, and I want the record clearly to show that.

Also I would state, which I neglected to do earlier, when Mr. Kuh made his presentation here about certain meetings, or discussions, or any contacts with the representatives of the New Hampshire Water Pollution Commission, he was making misstatements of facts which I will not go into at this time.

As a final statement I would ask the Secretary to withdraw this formal conference procedure and recognize the rights of the States.

MR. STEIN: We appreciate having that, Mr. Kalinski, and I will not ask you whether those remarks are necessary.

MR. KALINSKI: May the record show another sarcastic comment by the Chairman.

MR. BLAIR: May I question on a technicality? The law says the Secretary shall prepare for submission to the participants -- the Secretary shall prepare and forward to the pollution control agencies a summary.

MR. STEIN: That is correct.

MR. BLAIR: This is not that summary?

MR. STEIN: No.

MR. BLAIR: That summary will be prepared?

MR. STEIN: It will be subsequently prepared by the Secretary. We are just going ahead here to try to clarify any views we might have as to the summary in case the Secretary asks us, so we can help him. And I think it has been clarified.

The other point on the main situation is, I think from an equitable point of view that what is done in an upstream State must have relationships to what happens in the downstream State. In other words, we have had situations before where a stream runs across a State line, and it does not seem very equitable to have one State cleaning up and then put clean water across a State line just to have it degraded after it gets across the State line. Past experience has shown that this can be made to work, I think.

I have no further comment.

MR. WEST: I didn't get the last comment.

MR. STEIN: I think past experience has shown that this procedure can be made to work. I have no other further comments to make.

MR. BLAIR: If I may be permitted one word?

MR. STEIN: Yes.

MR. BLAIR: I think it should be pointed out in the record that the materials presented by both Maine and New Hampshire have been with the approval of the Governors of those States.

MR. STEIN: I didn't quite hear that.

MR. BLAIR: The materials presented by both Maine and New Hampshire have been with the approval of the Governors of those States.

MR. STEIN: Is that correct, sir?

MR. WEST: That is correct as far as Maine is concerned. Our position was discussed with the Governor Friday afternoon, and the statements were in his hands sometime during the day yesterday.

MR. KALINSKI: And, of course, the record will show the letter from the Governor of the State of New Hampshire, which was fully set forth in the record.

MR. STEIN: That is right.

As we are about completed, I want really to thank you all for coming. I have never believed in underlining in a report or a record, but this record is also going to show by real punctuation and not just by reading every sarcastic remark I am alleged to have made. You won't be able to miss it because it will tell you it is there.

Thank you very much for coming.

(Whereupon, at 4:15 p.m., the conference was concluded.)

Supplement

CONFERENCE
in the matter of
POLLUTION OF THE INTERSTATE WATERS
of the
ANDROSCOGGIN RIVER

Convened on the Call
of the
Secretary of Health, Education, and Welfare
Under Section 8 of the
Federal Water Pollution Control Act
(33 U.S.C. 466g et seq.)

Portland, Maine
September 24, 1962

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of Women Voters of Maine

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Conference in the Matter of Pollution of the
Interstate Waters of the Androscoggin River
Involving the States of New Hampshire and
Maine, at 9:40 a.m., Eastern Daylight Saving
Time, September 24, 1962, Civil Service
Commission Hearing Room, United States Post
Office, 125 Forest Avenue, Portland, Maine.

ATTENDANTS

PRESIDING:

Mr. Murray Stein, Chief, Enforcement Branch, Division of Water Supply and Pollution Control, Public Health Service, United States Department of Health, Education, and Welfare, Washington, D. C.

PRESENT:

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, REGION I, BOSTON, MASSACHUSETTS:

Mr. Walter Mode, Assistant Regional Director

Mr. Herbert H. Rogers, Regional Program Director, Water Supply and Pollution Control

Mr. Frank Tetzlaff, Associate Director of Environmental Health

Mr. Archie Freeman, Regional Program Director Environmental Engineering and Food Protection

Mr. Arthur Menard, Regional Attorney

REGION II, NEW YORK, NEW YORK

Mr. Lester Klashman, Regional Program Director Water Supply and Pollution Control

Mr. Earl Anderson, Sanitary Engineer Water Supply and Pollution Control

Mr. Thomas Frangos, Staff Sanitary Engineer Water Supply and Pollution Control

ROBERT A. TAFT SANITARY ENGINEERING CENTER, CINCINNATI, OHIO:

Mr. Hayse Black, Industrial Waste Consultant

Mr. F. W. Kittrell, In-Charge, Pollution Evaluation Unit

Mr. A. D. Sidio, Public Health Engineer

Mr. Kenneth Mackenthun, Aquatic Biologist

PUBLIC HEALTH SERVICE, DIVISION OF WATER SUPPLY AND POLLUTION CONTROL, ENFORCEMENT BRANCH, WASHINGTON, D. C.:

Mrs. Rheta Piere

Mr. Peter Kuh

REPRESENTATIVES OF OTHER FEDERAL AGENCIES:

Mr. Mark Abelson, Chairman, Northeast Field Committee
Department of the Interior

Captain Kenneth C. Abplanalp, Public Works Officer
Naval Air Station, Brunswick, Maine

Mr. Floyd W. Campbell, Soil Conservation Service
Department of Agriculture

Captain James B. Grady, U.S.N., Portsmouth Naval Base,
representing Rear Admiral J. H. Wellings, Commandant
First Naval District, Portsmouth, New Hampshire

Mr. Morton Hayes, Department of the Interior

Mr. Lewis E. Parlin, Soil Conservation Service,
Department of Agriculture, Orono, Maine

Captain George Playdon, representing First U.S. Coast
Guard District, Boston, Massachusetts

Mr. Edwin H. Robinson, Staff Member, Bureau of Sport
Fisheries and Wildlife, Fish and Wildlife Service
Department of the Interior

Mr. William A. Slagle, Jr., U.S. Army Corps of Engineers
New England Division, Waltham, Massachusetts

REPRESENTATIVES OF STATE AND INTERSTATE AGENCIES:

Mr. Machlan F. Blair, Chairman
New England Interstate Water Pollution Commission

Mr. Raeburn Macdonald, Chief Engineer
Maine Water Improvement Commission

Mr. William J. O'Neil, Assistant Attorney General
State of New Hampshire

OTHER WITNESSES:

Mrs. Charles D. McEvoy, Jr., Member, Board of
Directors of the League of Women Voters of Maine

PROCEEDINGS

MR. STEIN: The Conference is open.

This Conference, in the matter of pollution of the interstate waters of the Androscoggin River involving the States of New Hampshire and Maine, is being held under the provisions of Section 8 of the Federal Water Pollution Control Act.

Under the provisions of the Act, the Secretary of Health, Education, and Welfare, is required to call a conference when, on the basis of reports, surveys, and studies, the Secretary has reason to believe that interstate pollution subject to abatement under the Act, is occurring.

This Conference was called by the Secretary of Health, Education, and Welfare as, on the basis of reports, surveys, and studies, he has reason to believe that pollution subject to abatement under the Federal Water Pollution Control Act is occurring. The purpose of the Conference is to bring together State, interstate and other water pollution control agencies, the Department of Health, Education, and Welfare, and other interested parties, to review the existing situation, the progress which has been made, and to lay a basis for future action by all parties concerned, and to give the States, localities and industries an opportunity to take any remedial action which may be indicated under State and local law.

The conference technique is rather an old one. As a matter of fact, it is used by many State agencies informally in the normal conduct of their business in the field of water pollution control. The concept of a conference was proposed by the United States Supreme Court as long ago as 1921 in the famous case of New York and New Jersey involving interstate pollution.

I would like to quote from this Court opinion:

> "We cannot withhold the suggestion, inspired by the consideration of this case, that the grave problem of sewage disposal presented by the large and growing populations living on the shores of New York Bay is one more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any Court however constituted."

Under Section 8 of the Federal Water Pollution Control Act, the Secretary of Health, Education, and Welfare, has notified the official water pollution control agencies of this Conference. These agencies are the Maine Water Improvement Commission, New Hampshire Water Pollution Commission, and the New England Interstate Water Pollution Control Commission. Under the law, this is a conference between these official agencies and the Department of Health, Education, and Welfare. The official agencies are privileged to bring whomever they wish to the Conference and have them participate in the Conference.

The conferees representing all three of these agencies have been invited to participate in the Conference.

Mr. Herbert Rogers, who is the Regional Program Director, Division of Water Supply and Pollution Control of the Department of Health, Education, and Welfare, with headquarters in Boston, Massachusetts, has been designated as the conferee for the Federal Government.

My name is Murray Stein, and I am from headquarters of the Department of Health, Education, and Welfare in Washington, D. C.

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Both the States and Federal Government have responsibilities in dealing with interstate water pollution control problems. The Federal Water Pollution Control Act declares that the States have primary rights and responsibilities for taking action to abate and control interstate pollution. It has always been the policy of the Department of Health, Education, and Welfare, to recognize this traditional role of the States. The function of the Department is to encourage the States in this activity. However, the Department is charged by law with specific responsibilities in connection with interstate pollution control problems.

The Federal Water Pollution Control Act provides that pollution of interstate waters which endangers the health or welfare of persons in a State other than that in which the pollution originates, is subject to abatement. The Conference will be useful in providing a clear record delineating the progress which has already been accomplished, and indicating what still needs to be done.

Under the Federal law the Secretary is required, at the conclusion of the Conference, to prepare a summary of it which will be sent to all the conferees. The summary, according to law, must include the following:

1. Occurrence of pollution of interstate waters subject to abatement under the Federal Act;

2. Adequacy of measures taken toward abatement of pollution; and,

3. Nature of delays, if any, being encourtered in the abatement of pollution.

It is suggested that the conference discussions be directed toward these points so that we may prepare a serviceable summary at its conclusion.

In addition, the law requires the Secretary, at the conclusion of a Conference, to determine whether effective progress toward abatement of pollution, if such pollution exists, is being made.

It is also possible that we may consider this session of the Conference as only a first session, and recess, and reconvene at some later date, in order to enable the Conferees to study and digest the material presented here so that they may feel better equipped to come to the conclusions that the law requires.

Now a word about the procedures governing the conduct of the Conference.

Mr. Jack Rund is making a stenographic report of these proceedings for the purpose of aiding us in preparing a summary, and also providing a record of what is said and done here. We will make copies of the summary and transcript available to the conferees, that is, the official State water pollution control agencies and the interstate agency. Other people desiring to receive copies of the transcript and the summary should get in touch with these people if they wish.

All the conferees will be called upon to make statements. The conferees, in addition, may call upon participants they have invited to the Conference to make statements. At the conclusion of such statements the conferees will be given an opportunity to comment or ask questions, and at the conclusion of the conferees' comments or questions I may ask a question or so,too. This procedure has proven effective in developing a clear statement of the problem and reaching agreements on equitable solutions.

At this point I will say we have issued invitations to the official agencies of New Hampshire, Maine, and the New England Interstate Commission.

We would like to call on New Hampshire in response to that invitation. Is there a representative from New Hampshire here who wishes to have anything to say?

STATEMENT OF WILLIAM J. O'NEIL,
ASSISTANT ATTORNEY GENERAL FOR
THE STATE OF NEW HAMPSHIRE

MR. O'NEIL: Mr. Chairman, my name is William J. O'Neil. I am Assistant Attorney General for the State of New Hampshire.

I do not appear as a conferee. I am not a representative, in the strict sense, of the New Hampshire Water Pollution Commission but as legal counsel I appear on their behalf.

I want to make it clear at the outset that the Attorney General's office, as legal counsel for the New Hampshire Water Pollution Commission, considered it advisable under all of the facts and circumstances here, not to participate because of the Federal Government's unwillingness to provide a reasonable postponement.

I am authorized to submit a statement with regard to the Conference which has been proposed relative to the Androscoggin River. I offer these statements prior to the actual merits of this Conference which is called by Secretary Celebrezze of the Department of Health, Education, and Welfare under the provisions of Public Law 660, as amended by Public Law 87-88, 87th Congress. I do this in order that the position of the State of New Hampshire Water Pollution Commission, the designated pollution control agency of the State of New Hampshire, shall be made clearly evident in the record of whatever proceedings take place here today.

The Federal Water Pollution Control Act, as you know, Mr. Stein, provides for a period of notice to the affected State and interstate agencies which shall be not less than three weeks prior to the actual date of the Conference. It is thus apparent that there has been a failure to satisfy this requirement, inasmuch as the official notice, which was dated August 30, 1962, was not received by the New Hampshire Commission until Tuesday, September 4, indicating, of course, that weekend on which those were sent out was the Labor Day weekend. Since this was our first knowledge that the Federal Government contemplated any such enforcement activity, it is cited here to emphasize the unreasonably short amount of time accorded to the State of New Hampshire authorities to prepare for the Conference meeting.

The earliest practicable time for the Commission's consideration of the impending action was Wednesday, September 12, at which time the subject received thorough review and discussion. In the light of the inadequate time which had been granted by the Federal authorities, the lack of specificity as to the matters which would be the subject of the Conference, the failure to delineate the manner in which the Conference would be conducted, and, for that matter, the reasons for calling such a conference, the Commission directed a written request on September 12, 1962, to Secretary Celebrezze, via air mail, requesting a postponement of the proposed Conference.

At that time there was also requested that the Commission be given the benefit of whatever reports, surveys and studies which had been accumulated by the Federal Government, and upon which it was determined that the Conference should be scheduled. In our judgment this request is a reasonable one and the granting of it is essential if the State of New Hampshire is to participate in conference proceedings in an orderly and effective manner.

We also understand on September 17 your report on the Androscoggin, dated August 1962, was received. However, this has not given us sufficient time to examine the contents properly.

In addition, Mr. Stein, we also understand that last Friday we contacted Secretary Celebrezze's office and talked with, I think, the Assistant, Mr. Quigley. Mr. Quigley was to call us back before five o'clock on Friday afternoon. We requested at that time another postponement. For some reason or another Mr. Quigley did not deem it advisable to contact us direct. For what reason we don't know. We did receive a call from you, however, prior to five o'clock, at which time you denied our request. At that time I believe you stated it was outside of your powers to do so. If that was the case then we certainly had contacted the power in whose hands it could properly have been considered, and that was Mr. Quigley.

We feld our request should have been granted. The reason for your denial during that telephone conservation with our office, that you did not have authority at that time, was not well taken.

I am sure there is no need for me to stress the long history of close cooperation and coordination of effort which has existed between the State of New Hampshire and the United States Public Health Service, which is the official Federal pollution control agency. The mutual respect and understanding which has developed because of these close relationships has done much to enhance the pollution control program in our State in recent years. However, it is now apparent because of the arbitrary and secretive manner in which the Federal Government has seen fit to institute these enforcement proceedings, that the substantial progress already developed in this and other watersheds is being jeopardized.

In conclusion, I would point out that we remain, as we always have, ready and willing to cooperate with the Federal Government in matters of mutual concern, but this can only occur after our request for a reasonable postponement is honored so as to permit adequate opportunity for a review of the data and documents upon which the proposed Conference is based. As a corollary to this we consider it only proper that there be an advance delineation of the areas of conference you wish to pursue.

I would, therefore, Mr. Stein, ask that the record of whatever transpires here today show that the New Hampshire Water Pollution Commission repeats its request for a reasonable postponement, and that we find ourselves unable to participate in any conference proceedings until such a request has been granted.

We further believe that under all of the circumstances a sixty-day postponement is reasonable.

MR. STEIN: Thank you, Mr. O'Neil. The record will so indicate.

Now, if the conferees will bear with me to make this transcript easier to read, I would like at this point to put in a couple of statements so they will be close together.

First, about the timeliness of this notice. This is a technical point. I have a memorandum, a legal memorandum, from our Office of General Counsel, that is, the Office of the General Counsel of the Department of Health, Education, and Welfare, which reads:

> "Under Section 8(c)(2) of the Act..."

--the Federal Water Pollution Control Act --

> "not less than three weeks' prior notice of the Conference is required to be given to the agencies. Although the notice was received short of three weeks prior to the date set for the Conference..."

--and may I say parenthetically it was one day --

> "it is our opinion that under generally accepted procedural standards such notice mailed 24 days prior to the Conference date is timely."

I agree that there is a difference of opinion and we will certainly transmit your views to our Office of General Counsel for this to be determined. I would hope, though, that we were dealing with the substance of pollution rather than technical matters. I do not think technicalities are the way to get at this problem.

One further point, and this is just because my boss' name, Mr. James M. Quigley, the Assistant Secretary, was mentioned. Obviously only two people, I think, heard that telephone conversation -- myself and someone else. I did not just say that I did not have the power to grant a postponement. It is true I do not, and I did say that, among other things. What I did say was, I had discussed this with Assistant Secretary Quigley, who has full powers from the Secretary, and he advised me and directed me to make this call to New Hampshire and return the call, because he was in a vital budget meeting; and, I was transmitting the views of the Assistant Secretary who had the power.

This is what I think happened in this conversation.

MR. O'NEIL: Be that as it may, Mr. Stein, I still, in amplifying my statement at this time, say we certainly perhaps would agree that technically due notice might have been given. I will not agree at this time, because I have not studied it in detail, but it is certainly a borderline case, and certainly as an attorney, which I believe you are, postponements, under a reasonable request for postponements, should under circumstances of this nature be granted. We were not dilatory in requesting our postponement. We asked for it early enough so that if any plans had been formulated by the Federal authorities, they could be held up temporarily. Also, we did not have adequate information and we asked for that information, as I have stated in this statement. That was on September 17. I believe we received some of that information which, according to the Pollution Commission, is still not adequate enough for us to prepare ourselves adequately, and we do not feel this differs materially from preparing for a trial.

We are not going to go into this and offer the services of the State of New Hampshire unless we are adequately prepared and not in a sort of half-cocked manner. The State of New Hampshire always wants to be prepared and to give the best service possible under all of the circumstances. That is the reason why we requested a postponement. We renew that request and we think and still feel that under these circumstances our request for a postponement should have been granted in order to give us more adequate time to prepare for this Conference.

In the event that technically we are correct, and due notice was not given, we would also urge that perhaps there is no jurisdiction to conduct this Conference.

In addition, we also understand conferees must be present in order to conduct the Conference. We are not here as conferees. We are not here because of the unreasonable denial of our request for a postponement, and on that basis it would seem that you lack jurisdiction to conduct this Conference.

That is all the remarks the State of New Hampshire has at this time, Mr. Stein.

MR. STEIN: Thank you.

Just again for clarification of the record -- and I do not want, Mr. O'Neil, to do this in the sense that anyone would think we are arguing this unnecessarily, but the reason why I say this now is to have these points in the written record at the same place, so that anyone who wants to look at this will not have to go back and forth in the record -- I want to say I think I should point out that we did in our letter back to you, when postponement was requested, indicate that the conference technique was flexible so if you felt you were not prepared we could recess and reconvene at a time when you felt you could talk about this report. Also, whether you are here as conferees or not, our offer still stands in that regard.

As far as the other point is concerned I think the law requires that the conferees be invited to the Conference, but it does not necessarily require that they participate as conferees, because if the latter were the case, all that anyone would have to do in order to stop a function under the Federal law is just not show up and participate as a conferee.

I think the accepted view, at least in our Office of General Counsel and the Department of Justice in Washington, is that the Congress would not pass a law intending such a situation to prevail. Again I am not talking about the technical point of this, but I just want to give the point of view. I do not want this in any sense to be construed as a rebuttal, or as an argument with you, Mr. O'Neil, but just to present it in one place in the record.

MR. O'NEIL: On legal technicalities I do not want to argue with you and I am sure you are aware of it, as everyone else is, but I want to renew my statement, regardless of the legal and technical question involved, that our request was reasonable.

In addition, even though this may be a preliminary conference, or whatever you want to call it, and a recess were taken, certainly some of the rights of the State of New Hampshire are involved here. It is an enforcement procedure. Therefore we want to be prepared when we come here, whether it is an initial step or the last one. It does not make any difference to us whether you will recess and hold an additional conference. The fact of the matter is, this is the start of a proceeding established under Federal law in which the State of New Hampshire is vitally concerned, and we do not feel you have given us adequate time in which properly to prepare ourselves to present our views on this matter at this time.

For that reason we have asked for, and in the course of my remarks I renew my request for, a postponement.

Thank you very much.

MR. STEIN: Thank you very much.

May we have a word from the representative of the State of Maine, if he is in the room at this time?

STATEMENT OF RAEBURN MACDONALD,
REPRESENTING THE STATE OF MAINE

MR. MACDONALD: Mr. Chairman, my name is Raeburn Macdonald. I was designated as a representative of the State of Maine to attend this Conference. However, the circumstances that have arisen have altered that a little bit and I will explain that in a moment.

As you know, the State of Maine also requested a postponement of this Conference, as did New Hampshire. We feld that the postponement was justified in that the scope of the Conference was not delineated in the announcement. Therefore, we could not possibly know what to prepare or whom to bring as conferees. We did not get the technical report on the Androscoggin River until last week. We have had almost no time to review that. We have certainly had no time at all to review it in the light of other data on that stream.

We could not come here today prepared to discuss either the Androscoggin River intelligently or meaningfully, or, in particular, that report.

Now, in view of the position taken by the State of New Hampshire, who we feel are very much affected by this action, we, the State of Maine, do not think we are in any position to confer here until the ground rules can be laid out and the scope of the report sharply delineated, and until we have had an opportunity to review the technical report that the Public Health Service has taken up. We will be glad at a future date to confer with the Public Health Service, the State of New Hampshire, and with the Interstate Commission, on this matter.

MR. STEIN: Thank you very much, Mr. Macdonald.

I might point this out: While I am in the Public Health Service and most of the people here are, and we are the operating arm, the statute provides that the functions under this section of the Act are vested over in the Secretary of Health, Education, and Welfare, and this is one function that the Secretary has not delegated to the Public Health Service. We are doing this in the name of the Department.

May I call on the representative of the New England Interstate Commission, if he is in the room?

STATEMENT OF LACHLAN F. BLAIR,
CHAIRMAN, NEW ENGLAND INTERSTATE
WATER POLLUTION CONTROL COMMISSION

MR. BLAIR: Mr. Stein and Ladies and Gentlemen: I am Lachlan F. Blair, Chairman of the New England Interstate Water Pollution Control Commission.

The New England Interstate Water Pollution Control Commission as an agency of its seven constituent States -- this includes the six New England States and New York -- and as such, an agency created by interstate compact ratified by the seven legislatures and by Congress -- our Commission supports the requests of the pollution control organizations of both Maine and New Hampshire for a postponement of this proposed Conference on the Androscoggin River. We concur in their views that the specifics of the Conference have not been revealed, nor material made available in sufficient time to prepare for meaningful and constructive discussion.

In view of the fact that New Hampshire and Maine are not participating in the Conference, it is evident that this Commission cannot properly participate at this time. It is, therefore, further evident that this meeting cannot truly be regarded as a conference.

MR. STEIN: Thank you, Mr. Blair. We appreciate your views.

At the request of the representative of our Office of General Counsel, at the present time I am going to ask that there be put in the record an affidavit of service of the notice of the Conference.

(The document referred to is as follows:

"AFFIDAVIT OF SERVICE

```
*************************************
*                                   *
*         In the Matter of          *
*                                   *
*POLLUTION OF THE INTERSTATE WATERS *
*                                   *
*OF THE ANDROSCOGGIN RIVER          *
*                                   *
*         (NEW HAMPSHIRE-MAINE)     *
*                                   *
*************************************
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AFFIDAVIT OF SERVICE: Letters calling the First Session of the Androscoggin River (New Hampshire-Maine) Conference.

DATE OF MAILING: August 30, 1962

I, the undersigned employee of the U. S. Department of Health, Education, and Welfare, being duly sworn, depose and say that on the date indicated above I served the above-entitled documents, copies of which are attached hereto and made a part hereof, by post-paid registered mail upon the following persons, addressed to them at the following addresses:

Addressee	Registration
1. Mr. William A. Healy Technical Secretary New Hampshire Water Pollution Commission 61 South Spring Street Concord, New Hampshire	740626
2. Dr. Dean H. Fisher, Secretary Maine Water Improvement Commission Department of Health and Welfare State House Augusta, Maine	740628
3. Mr. Joseph C. Knox, Secretary New England Interstate Water Pollution Control Commission 73 Tremont Street Boston 8, Massachusetts	740627

and thereafter received the receipts affixed to this affidavit above.

/s/ James R. Curtis
JAMES R. CURTIS

Washington, D. C. ss:
Subscribed and sworn to (affirmed)
before me this 30th day of
August, 1962.

/s/ Francis C. Huhn
Notary Public

(NOTARY SEAL OF THE DISTRICT
OF COLUMBIA)

My Commission Expires 10/31/62")

MR. STEIN: At this time I would like to call on Mr. Herbert Rogers for the presentation of the statement of the Public Health Service.

I might indicate that people who are going to make a statement should come up to the lectern and speak from there. I also would indicate that since many of you people have indicated that possibly you will wish to make statements and you have come long distances, that although the Federal Government has generally called upon Federal agencies alone to make the statement, if you will make your wishes known to Mr. Rogers, we would be happy to call on anyone here as a part of the Federal statement, so that you can have your statement in the record, if you so wish.

Also, while this is proceeding, if you wish to make a statement you may get in touch with Mr. Rogers and you will be called.

Mr. Rogers.

STATEMENT OF HERBERT H. ROGERS, REGIONAL PROGRAM DIRECTOR, WATER SUPPLY AND POLLUTION CONTROL, BOSTON, MASSACHUSETTS

MR. ROGERS: For the record, my name is Herbert H. Rogers, Regional Program Director, Water Supply and Pollution Control, Boston.

Mr. Chairman and Members of the Conference:

In carrying out our responsibilities under the Federal Water Pollution Control Act, we have evaluated the conditions of all interstate waters in Region I of the Department of Health, Education, and Welfare. Among these are the waters of the Androscoggin River and its tributaries. On the basis of this and other information assembled from reports, surveys, and studies, in accordance with Section 8 of the Federal Water Pollution Control Act, the Secretary of the Department of Health, Education, and Welfare called this Conference on August 30, 1962. The Division of Water Supply and Pollution Control asked their staff to prepare a "Report on Androscoggin River."

This completed report, dated August 1962, was sent September 13, 1962, to the Maine Water Improvement Commission, New Hampshire Water Pollution Commission, and New England Interstate Water Pollution Control Commission. Mr. Sidio, under the direction of Mr. Kittrell, has prepared this report. Assistance was given by the Regional Office and we wish to thank all of those who have so willingly made information available for this report.

I wish to point out that the purpose of this Conference is to carry out our statutory obligations so that pollution of interstate waters may be abated, and in so doing to assist Federal, State, interstate and local regulatory and construction agencies to abate pollution.

MR. STEIN: Thank you.

Do you have anyone to call on for the major statement?

MR. ROGERS: For the presentation of the report.

MR. STEIN: Yes.

MR. ROGERS: First I would like to introduce some of the people, Mr. Stein. Would you like to have this done now? Would you like to introduce some of the people who are here?

MR. STEIN: If you wish.

MR. ROGERS: Let us hold this for just a minute and as each one comes up, perhaps we will have the introductions at that time.

MR. STEIN: We might wait and have those a little later.

At this time I would like to introduce someone myself. I note present Mr. Arthur Menard, the Regional Attorney of the Department of Health, Education, and Welfare, who is in the room; and Mr. Wally Mode, the Assistant Regional Director.

MR. ROGERS: Let me introduce some of the staff in the room.

He is our Assistant Regional Director of Health, Education, and Welfare, from Boston.

Also Mr. Frank Tetzlaff, Associate Director, Environmental Health, Public Health Service, Boston.

Mr. Archie Freeman, I believe, is still with us, who is our Regional Program Director of the Environmental Engineering and Food Protection, Boston.

On our staff there are those who have been responsible for the preparation of this report.

We have here Mr. F. W. Kittrell, who is in charge of the Pollution Evaluation Unit from the Robert A. Taft Sanitary Engineering Center at Cincinnati, Ohio, and Mr. A. D. Sidio, Public Health Engineer, whom I would like to call on at this time to present this report.

STATEMENT OF A. D. SIDIO, PUBLIC HEALTH ENGINEER, POLLUTION EVALUATION UNIT, ROBERT A. TAFT SANITARY ENGINEERING CENTER, CINCINNATI, OHIO, PUBLIC HEALTH SERVICE, UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

MR. SIDIO: Thank you, Mr. Rogers. I will read the material included in this report.

REPORT ON ANDROSCOGGIN RIVER

New Hampshire-Maine

August 1962

BACKGROUND

The condition of the Androscoggin River has long been a matter of concern. In 1930 a study was made of five industrial rivers in the State of Maine including the Androscoggin.[1] Results of the study showed the Androscoggin to be heavily polluted.

During the summer months of 1940, 1941 and 1942 particularly obnoxious conditions existed due to the pollution load in the river. At Lewiston, hydrogen sulfide odors were highly objectionable and concentrations of the gas in the atmosphere were sufficient to tarnish exposed metals and to discolor painted surfaces. Public demand for relief resulted in efforts to improve the condition of the river.

In 1940 the Central Maine Power Company retained Metcalf and Eddy of Boston to investigate the Androscoggin River.[2] During the study, in the middle of September, the river was found to be almost completely devoid of dissolved oxygen from Berlin, New Hampshire, to Lewiston, Maine.

In 1941 the Maine legislature created the Sanitary Water Board. The first consideration of the board was the polluted condition of the Androscoggin River from the New Hampshire-Maine State line to the Lewiston-Auburn area. In August 1941 the board retained Metcalf and Eddy to make a survey of the river and to recommend remedial measures. A report prepared on the findings of the survey was submitted to the board in February 1942. The report was issued as Bulletin No. 1 of the Maine Sanitary Water Board.[3]

1/ Lawrence, Walter A., "A Twenty-Year Review of Androscoggin River Pollution Control Activities." (June 6, 1961).

2/ Chase E. Sherman, Consultant, Metcalf & Eddy, "A Twenty-Year Study of Pollution of the Androscoggin River." (Presented at the American Society of Civil Engineers' October 1960 Meeting in Boston, Massachusetts).

3/ Prepared by Metcalf & Eddy, "Investigation of the Pollution of the Androscoggin River and Remedial Measures." Bulletin No. 1, 1942, State of Maine Sanitary Water Board.

Field investigations for the report were made from August to December 1941. Dissolved oxygen was absent from above Rumford to below Lewiston. In addition to the odors, large masses of gas-lifted solids floated on the surface of the river. Above the dam below Berlin the area of floating solids was estimated at four or five acres.

The report, dealing with the effects of organic wastes, summarized that of the total pollutional load in the Androscoggin River, 96 percent was from industrial sources, 92 percent was from the pulp and paper mills, and about 71 percent of the total was in the form of concentrated sulfite digester liquors. Total industrial pollution was estimated at 2,500,000 population equivalents.

Remedial measures were recommended to control pollution following the studies. Failure of the pulp and paper mills to begin remedial action resulted in the filing of an information by the Attorney General of the State of Maine with the Supreme Judicial Court of Equity for Androscoggin County in May 1942 relative to pollution by the mills and its alleged effects, requesting the Court to grant relief.

In December 1942 a stipulation was entered into by the mills and the Attorney General. The mills agreed to undertake remedial measures pending further legal action after October 1943. The stipulation provided that the mills conduct a program of sampling and analysis of the river, build an experimental lagoon for sulfite waste, restrict discharge of sulfite liquor and furnish data to the Attorney General.

Provisions of the stipulation of 1942 failed to provide relief. In January 1944 the Court issued a decree requiring the mills to maintain the sampling and analysis program during the critical season from May through September, and to further restrict production. Again the measures called for were inadequate and odor conditions were very bad the following summer in the Lewiston-Auburn area.

In December of 1947 a Court decree placed additional restrictions on production during the critical season. The decree also provided for the construction of a lagoon at the International Paper Company Plant. Dr. Walter A. Lawrence of Bates College was designated to supervise the operation of the lagoon to maintain 4 parts per million dissolved oxygen at the North Turner Bridge at the head of the slackwater formed by the Gulf Island Dam.

Odor conditions occurred again in the Lewiston-Auburn area during the summer of 1948. The decree of 1948 appointed Dr. Lawrence as administrator with authority to regulate activities of the pulp and paper mills relative to the pollution of the river. The decree placed additional restrictions on the discharge of sulfite waste liquors. These restrictions were based on season, river flows, water temperature and the dissolved oxygen content at North Turner Bridge. Dissolved oxygen at North Turner was to be maintained at 4 parts per million. The administrator was given authority to require the addition of soluble nitrate when the dissolved oxygen level became critical.

The most recent decree established discharge quotas based on a "Pollution Factor" of 1.75. The equivalent tons of sulfite waste liquor that could be discharged was calculated by multiplying the million cubic feet of water flowing during the preceding week by the 1.75 factor. In 1953 an agreement was entered into between the companies and the administrator to determine quotas based on a Pollution Factor of 1.30. This Pollution Factor, as calculated, has been reduced from 5.0 in 1941 to 0.49 in 1960, and estimated at 0.2 for 1961. The factor is based on equivalent tons of sulfite waste liquor discharged.

Sodium nitrate has been used as a control measure in the Gulf Island Pool. The nitrate provided a source of oxygen when the dissolved oxygen content in the river became critical. From 1948 through 1960 a total of 6,694 tons of sodium nitrate was used at a cost of approximately $500,000. Use of the nitrate served as an odor control measure pending mill process changes.

Pollution of the river resulting from the discharge of sulfite waste liquor has been reduced by several means. The closing of several mills has resulted in a reduced pollution load. In 1958 the Brown Company placed its magnesium base sulfite process in operation at Berlin. In this process about 90 percent of the sulfite waste liquor is evaporated and burned for the recovery of heat and chemicals. In 1961 the Oxford Paper Company completed its new Kraft Mill, replacing two sulfite mills.

By regulated production, controlled discharge by use of lagoons, and process changes, the sulfite pollution load to the river during the summer of 1961 was estimated to have been reduced to about 5 percent of that during the summer of 1941. In should be noted that this percentage is based on sulfite waste liquor pollution only, and does not consider the total organic pollutional load being discharged.

Data submitted to the Maine Attorney General's office by the Administrator indicate the obnoxious conditions resulting from the release of hydrogen sulphide to the atmosphere from the river have been corrected. The data shows that no objectionable odors have been recorded in the Lewiston-Auburn area during the past three summers of 1959, 1960 and 1961.

To this time efforts to regulate pollution have been directed toward the prevention of a public nuisance. Pollution discharged to the river has been reduced, but adverse effects have not been eliminated. The improved conditions have resulted primarily from the various measures of the Brown, Oxford and International Pulp and Paper Companies at Berlin, New Hampshire, and Rumford and Livermore Falls, Maine. Numerous other industries continue to discharge untreated wastes along with the untreated municipal sewage of some 101,400 people.

This report presents a review of existing data, and certain calculations based on stream function and behavior. The section of the Androscoggin River considered extends from a point upstream from Berlin, New Hampshire, to its mouth in Merrymeeting Bay along the coast of Maine.

THE AREA

The Androscoggin River begins at Errol Dam at the outlet of Umbagog Lake. The river flows in a southerly direction through New Hampshire to Gorham, where it turns in an easterly direction into Maine. The stream then flows easterly and southerly to its mouth at Merrymeeting Bay. The tidal effect extends upstream to Brunswick, Maine.

The section of the river of concern in this report extends from a point above Berlin, New Hampshire, to its mouth in Maine, and is shown in Chart 1.

I do want to introduce these charts into the record.

MR. STEIN: They will be included.

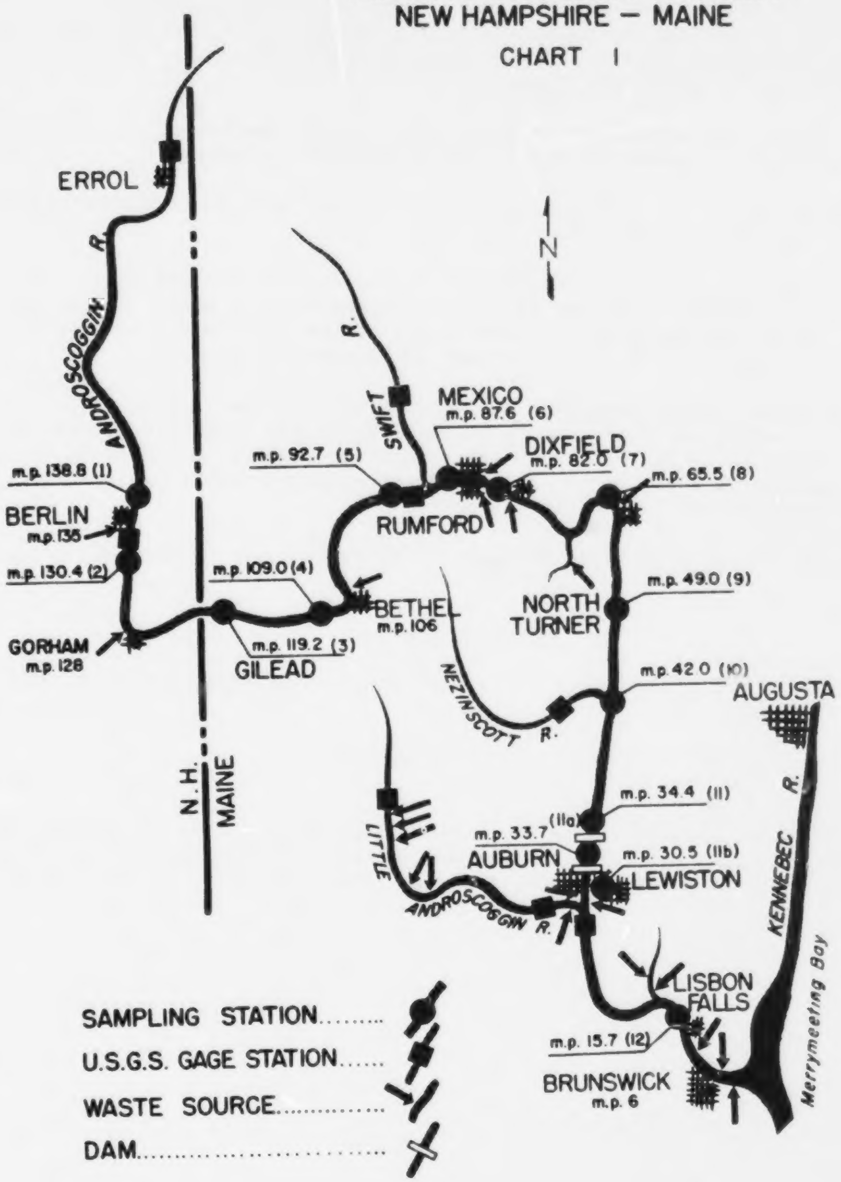
MR. SIDIO: I have seven charts, four tables, and three appendices to include in the record.

MR. STEIN: All the charts, tables and appendices will be included in the record.

MR. SIDIO: Thank you.

(Chart No. 1 is as follows:)

ANDROSCOGGIN RIVER
NEW HAMPSHIRE – MAINE
CHART 1


ERROL
ANDROSCOGGIN R.
N
SWIFT R.
MEXICO
m.p. 87.6 (6)
DIXFIELD
m.p. 82.0 (7)
m.p. 92.7 (5)
m.p. 65.5 (8)
RUMFORD
m.p. 138.8 (1)
BERLIN
m.p. 135
m.p. 130.4 (2)
m.p. 109.0 (4)
BETHEL
m.p. 106
m.p. 49.0 (9)
NORTH
TURNER
GORHAM
m.p. 128
m.p. 119.2 (3)
GILEAD
NEZINSCOTT R.
m.p. 42.0 (10)
AUGUSTA
N.H.
MAINE
m.p. 34.4 (11)
KENNEBEC R.
m.p. 33.7 (11a)
AUBURN
m.p. 30.5 (11b)
LEWISTON
LITTLE ANDROSCOGGIN R.
LISBON
FALLS
Merrymeeting Bay
m.p. 15.7 (12)
BRUNSWICK
m.p. 6
SAMPLING STATION
U.S.G.S. GAGE STATION
WASTE SOURCE
DAM

MR. SIDIO: In this chart we have shown the sampling stations that will be used for the collection of data that will be used in the following sections of this report. The United States Geological Survey's gauging stations on the river are indicated by these squares. The waste sources are indicated by the arrows which you see along the rivers, and the circles are tributaries.

In this reach the river flows through Coos County, New Hampshire, and Oxford, Franklin, Androscoggin, Cumberland and Sagadahoc Counties in Maine.

Sources of wastes are indicated on Chart 1, along with the sampling stations used in collecting the existing data.

The drainage area above Berlin amounts to approximately 1,350 square miles. An additional 2,100 square miles are in the Androscoggin basin below Berlin. Approximately 85 percent of the basin is in forest land. Lakes and ponds occupy about 4 percent of the basin area, and about 5.5 percent is in cropland.4/

Approximately 725,000 acre-feet of usable water storage is provided in the basin. About 90 percent of this storage is above Errol Dam. The storage is used primarily for the benefit of industrial uses and power production. Flow in the river is well regulated, and at Berlin is generally controlled between a minimum of 1,550 and a maximum of 2,500 cubic feet per second.

Economy of the area is based principally on agriculture, lumbering, industry and recreation.

SOURCES OF DATA

Data available are limited to the summer sampling periods and to the sampling stations listed in Table 1.

(Table No. 1 is as follows:)

4/ "The Resources of the New England-New York Region, Part 2, Chapter VII, Androscoggin River Basin, Maine-New Hampshire." New England-New York Inter-Agency Committee. (Revised May 1954, July 1954, October 1954).

REPORT ON ANDROSCOGGIN RIVER

New Hampshire-Maine

TABLE NO. 1

SAMPLING STATIONS

Station Number	Station Name	Mile Point	Station Description
1	Bells	138.8	Bridge about 4 miles above Berlin, New Hampshire
2	Twin State	130.4	Below Berlin
3	Gilead	119.2	By Bridge (Approx. 3 miles below State Line)
4	Bethel	109.0	Route 2 Bridge
5	Rumford Point	92.7	Bridge at old ferry site
6	Rumford	87.6	Virginia Bridge at upper edge of Rumford
7	Dixfield	82.0	At Bridge
8	Riley	65.5	Bridge midway between North Jay and Riley
9	North Turner	49.0	Bridge on Highway 219
10	Turner Center	42.0	Bridge on small road to Rte. 202
11	Gulf Island	34.4	Dam opposite East Auburn
11a	Deer Rips	33.7	Between bridge at Lewiston and Gulf Island Dam
11b	Lewiston	30.5	In Lewiston Canal
12	Lisbon Falls	15.7	Bridge at Lisbon Falls

MR. SIDIO: The location and number of stations are inadequate to permit a complete breakdown of industrial contributions, or tributary contributions to the main stem. A complete analysis of the industrial and municipal pollution loads would require sampling of the sources and additional sampling points along the river and tributaries above, below and between the discharges.

Data obtained during the summers of 1957 through 1961 are recorded in Appendix A. Values are the maximum, minimum, and average values for the months of June through September. The tables include data on flow, temperature, pH, dissolved oxygen, Biochemical Oxygen Demand and color.

A summary of 1961 data for flow, dissolved oxygen, Biochemical Oxygen Demand, and color are presented in Table No. 2.

(Table No. 2 is as follows:)

REPORT ON THE ANDROSCOGGIN RIVER
New Hampshire-Maine

TABLE NO. 2

SUMMARY OF 1961 DATA

Station (Mile Point)	Miles below Berlin	1961 Date	Avg. Yield cfs/S.M.	Avg. Flow cfs	Days from Berlin	Dissolved Oxygen		B.O.D.		Color
						mg/1	1000 lbs/day	mg/1	1000 lbs/day	
		Jun	2.05	2645		8.62	124	1.1	16	39
1		Jul	1.53	1969		7.38	78	1.0	10	37
		Aug	1.62	2085		7.50	84	1.0	11	37
(MP 138.8)	-4	Sep	1.54	1992		7.60	82	0.8	9	36
		Avg	1.68	2173	-0.2	7.78	92	1.0	12	37
		Jun	1.95	2948		8.17	133	9.7	148	72
2		Jul	1.37	2078		6.44	72	10.3	116	72
		Aug	1.41	2125		6.34	73	12.7	146	81
(MP 130.4)	5	Sep	1.34	2027		6.34	69	12.3	135	66
		Avg	1.52	2294	0.3	6.82	87	11.25	130	73
		Jun	1.89	3100		7.71	133	7.2	117	71
3		Jul	1.31	2153		4.91	57	11.8	139	88
		Aug	1.31	2149		4.56	53	9.8	114	85
(MP 119.2)	16	Sep	1.25	2048		5.13	57	10.9	120	74
		Avg	1.44	2362	0.6	5.58	75	9.92	122	80
		Jun	1.87	3170		7.78	137	6.9	115	70
4		Jul	1.29	2188		5.73	67	8.0	95	81
		Aug	1.27	2160		4.76	56	7.8	90	81
(MP 109.0)	26	Sep	1.21	2058		5.00	56	8.2	92	72
		Avg	1.41	2394	1.0	5.82	79	7.72	98	76
		Jun	1.80	3709		6.71	139	4.5	84	71
5		Jul	1.15	2368		4.24	53	4.4	56	94
		Aug	1.08	2227		2.76	33	4.5	54	92
(MP 92.7)	42	Sep	1.03	2118		3.74	43	3.1	36	71
		Avg	1.26	2606	1.7	4.36	67	4.1	58	82
		Jun	1.79	3746		6.03	128	3.1	62	73
6		Jul	1.15	2410		4.15	53	3.0	39	88
		Aug	1.07	2232		2.04	25	3.0	37	93
(MP 87.6)	47	Sep	1.02	2123		3.04	35	2.5	29	81
		Avg	1.26	2628	2.4	3.82	60	2.9	42	84
		Jun	1.79	4019		7.34	167	5.3	106	82
7		Jul	1.15	2582		5.49	76	5.8	81	101
		Aug	1.06	2392		3.39	44	6.6	85	114
(MP 82.0)	53	Sep	1.02	2274		4.10	50	5.8	72	108
		Avg	1.26	2817	2.7	5.08	84	5.9	86	101
		Jun	1.67	4105		6.34	147	4.5	93	76
8		Jul	1.07	2637		4.41	62	4.4	62	94
		Aug	0.99	2444		1.49	20	4.5	60	112
(MP 65.5)	69	Sep	0.94	2322		1.93	24	3.2	40	100
		Avg	1.17	2877	4.6	3.54	63	4.2	64	96
		Jun	1.58	4167		6.75	160	4.4	94	74
9		Jul	1.01	2678		5.14	74	4.1	60	90
		Aug	0.94	2481		2.64	35	3.7	50	106
(MP 49.0)	86	Sep	0.89	2358		3.31	42	3.4	43	102
		Avg	1.11	2921	6.0	4.46	78	3.90	62	93
		Jun	1.51	4219		6.35	152	3.8	83	71
10		Jul	0.97	2710		3.67	53	3.6	53	110
		Aug	0.90	2512		1.99	27	3.2	43	110
(MP 42.0)	93	Sep	0.85	2387		3.32	43	2.4	31	105
		Avg	1.06	2957	7.5	3.83	69	3.25	52	99
		Jun	2.20	5780		5.12	173	2.2	68	66
11		Jul	1.52	4345		0.44	10	1.9	44	84
		Aug	1.22	3492		0.28	5	2.2	41	93
(MP 34.4)	101	Sep	1.15	3298		1.92	36	1.0	19	90
		Avg	1.52	4229	11.0	1.94	56	1.8	43	83
		Jun	2.20	5780		5.35	182	2.3	70	71
11a		Jul	1.52	4345		1.08	26	2.3	54	92
		Aug	1.22	3492		0.43	8	2.2	41	93
(MP 33.7)	101	Sep	1.15	3298		1.58	30	1.2	22	98
		Avg	1.52	4229	11.1	2.11	62	2.0	47	88
		Jun	2.20	5780		5.93	200	2.4	73	69
11b		Jul	1.52	4345		1.37	32	2.0	46	90
		Aug	1.22	3492		1.00	19	1.5	29	95
(MP 30.5)	105	Sep	1.15	3298		2.32	43	1.2	21	98
		Avg	1.52	4229	11.3	2.66	74	1.8	42	88
		Jun	1.88	6360		9.18	320	2.9	102	68
12		Jul	1.39	4705		8.22	209	1.8	46	84
		Aug	1.09	3677		7.98	159	1.9	37	90
(MP 15.7)	119	Sep	1.05	3530		7.84	151	1.6	31	92
		Avg	1.35	4568	12.5	8.30	210	2.0	54	84

MR. SIDIO: CHEMICAL AND PHYSICAL DATA.

Chemical and physical data used in the preparation of this report were reproduced from documents on file in the Attorney General's office, Augusta, Maine. The documents include results of determinations made on samples collected from the river as follows:

1. Temperature (^{o}C).
2. Dissolved Oxygen (D.O.)
3. 5-day - 20^{o} C. Biochemical Oxygen Demand (B.O.D.).
4. Hydrogen Sulphide (H_2S).
5. Color
6. Turbidity
7. Sedimentation
8. Fungus
9. Gas
10. Sludge
11. Wind Direction
12. Odor
13. Hydrogen Ion Concentration (pH).

These sample analyses are made weekly during the period from about May 15 to October 15 each year.

Analyses performed in the collection of data presented to the Attorney General are under the direction of a court appointed administrator, and are conducted and paid for by industry. The Brown Company is responsible for the section from above Berlin to Bethel (Stations 1 through 4) and the Oxford Paper Company for the section from Rumford Point to Lisbon Falls (Stations 5 through 12).

Table 1 lists the sampling stations by number, name, river miles from mouth, and description. The stations are also indicated on Chart 1.

COLIFORM BACTERIA DATA

The bacteriological calculations presented in this report have been based on sewered population figures in the "Summary Report on Quality of Interstate Waters - Androscoggin River (New Hampshire-Maine - September 1961)." The sewered population figures used in the summary report were obtained from "Unpublished Data, 1962 Inventory, Municipal and Industrial Waste Facilities - U. S. Department of Health, Education, and Welfare." The data were reviewed with the States of New Hampshire and Maine in September and November 1961, respectively.

Densities of bacteria of the coliform group at the various points in the river have been calculated, based on multiplication and die-off of this group of bacteria discharged in normal domestic sewage into the river, without consideration of the effects of other nutrients or toxins.

Coliform bacteria densities calculated downstream from the sources of raw sewage are listed in Appendix C. For convenience it was assumed that no coliform bacteria were present at the Bells sampling station above Berlin. Appendix C includes average flow values for August 1959 and the total number of coliform bacteria, in billions, passing the various points on the river in a day. Flow data for August 1959 were used as a typical month.

MR. STEIN: May I interrupt you there?

MR. SIDIO: Yes, sir.

MR. STEIN: As I understand it, these coliform figures are calculated, and not as a result of sampling?

MR. SIDIO: The coliform data are all as a result of calculations.

MR. STEIN: Calculations, estimating the population?

MR. SIDIO: Calculated from the known populations discharging to the various sources.

MR. STEIN: Why didn't you use data from the stream?

MR. SIDIO: We do not have any data, nor did we have any data available on bacteriological studies in the stream.

MR. STEIN: In other words, you couldn't find any bacteriological testing in the stream?

MR. SIDIO: We could not find any bacteriological data.

MR. STEIN: Thank you.

MR. SIDIO: FLOW DATA

Flow data have been obtained from the U. S. Geological Survey. Gauging stations are located at Errol, Gorham, Rumford and Auburn on the Androscoggin. Gauges are also operated on the Swift, Nezinscot and the Little Androscoggin Rivers.

Flows at each of the sampling stations were calculated as described in Appendix B.

SOURCES OF POLLUTION

The major sources of pollution in the Androscoggin River are the industrial waste and municipal sewage discharges. The points of waste discharges are indicated on Chart 1.

There are fourteen sewered communities contributing untreated wastes to the river in the reach considered. These communities are listed in Table 3.

(Table 3 is as follows:)

REPORT ON ANDROSCOGGIN RIVER

New Hampshire-Maine

TABLE NO. 3

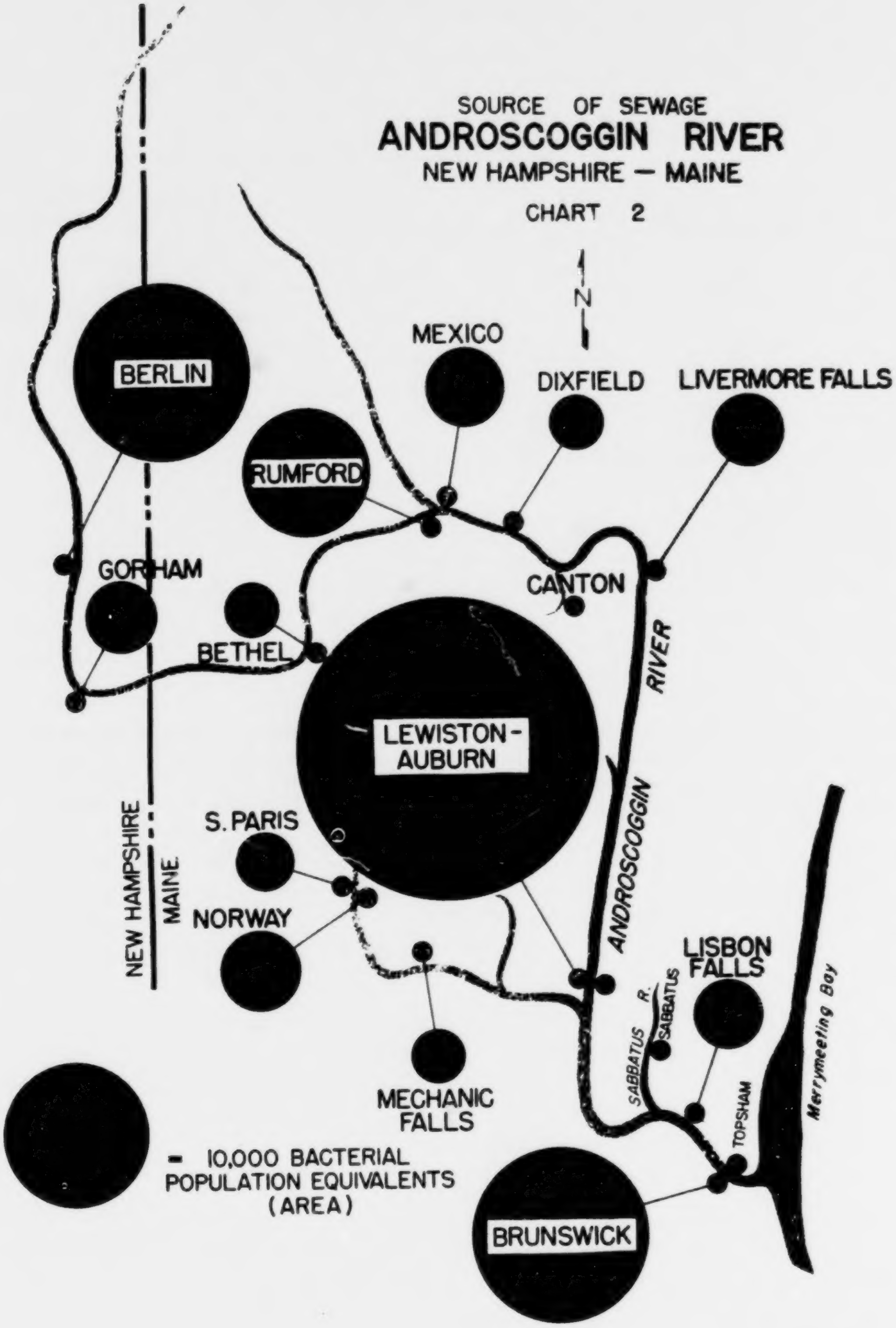
SEWERED COMMUNITIES

New Hampshire	River Mile	Bacterial Population Equivalent to Stream	
Berlin	135	15,000	
Gorham	128	2,500	
		Sub-total	17,500
Maine			
Bethel	106	1,200	
Rumford	84	8,000	
Mexico	82	3,000	
Dixfield	79.5	1,200	
Livermore Falls	59	2,600	
Auburn	28.5	14,500	
Lewiston	28	31,000	
*South Paris	27-23	1,500	
*Norway	27-22	2,800	
*Mechanic Falls	27-12	1,400	
		Sub-total	67,200
Lisbon Falls	15	2,200	
Brunswick	6	14,500	
		Total	101,400

*Discharge to tributaries

MR. SIDIO: The table also lists the contribution of bacterial pollution to the stream from each of the communities. Chart 2 presents the sources of sewage discharged to the Androscoggin between Berlin, New Hampshire, and its mouth. The areas of the circles indicate the relative bacterial contributions from the various sources.

(Chart No. 2 is as follows:)



SOURCE OF SEWAGE
ANDROSCOGGIN RIVER
NEW HAMPSHIRE — MAINE
CHART 2

N
MEXICO
DIXFIELD
LIVERMORE FALLS
BERLIN
RUMFORD
GORHAM
CANTON
BETHEL
LEWISTON-AUBURN
ANDROSCOGGIN RIVER
NEW HAMPSHIRE
MAINE
S. PARIS
NORWAY
MECHANIC FALLS
LISBON FALLS
SABBATUS R.
SABBATUS
TOPSHAM
Merrymeeting Bay
BRUNSWICK
- 10,000 BACTERIAL POPULATION EQUIVALENTS (AREA)

MR. SIDIO: This is Chart 2 here, which indicates each of the municipalities discharging sewage and untreated sewage to the Androscoggin. These two here discharge to the Little Androscoggin, a tributary. All of the others are discharged directly to the main stem, or very close to the main stem. The size of this ball here indicates a 10,000 bacterial population equivalent. The areas of these various circles indicate the relative portion discharged by each of the municipalities or areas along the river.

Rumford and Mexico have had a preliminary survey made for joint waste treatment facilities. The report was completed in October 1961, and considered the pulp and paper mill wastes in addition to the municipal sewage. In 1959 a preliminary survey of joint sewerage facilities for Norway and South Paris was completed.

Table 4 lists the known sources of organic waste being discharged to the river. This table lists both municipal and industrial sources.

(Table No. 4 is as follows:)

REPORT ON ANDROSCOGGIN RIVER

New Hampshire-Maine

TABLE NO. 4

SOURCES OF ORGANIC WASTES

		BOD Population Equivalents	
New Hampshire	River Mile	Individual Sources	Total for Area
Berlin	135	15,000 (1)	906,000
Brown Company		891,000 (2)	
Gorham	128	2,500 (1)	2,500
Maine			
Bethel	106	1,200 (1)	1,200
Rumford)) Mexico)	83	11,000 (1)	318,000
Oxford Paper Company		307,000 (2)	
Dixfield	79.5	1,200 (1)	1,200
Livermore Falls	59	2,600 (1)	78,000
International Paper Company		75,400 (2)	
Auburn	28.5	14,500 (1)	
Lewiston	28	31,000 (1)	
Bates Mfg. Co.			
Cotwool Mfg. Co.			
W. S. Libbey Co.			
North American Phillips Co.			

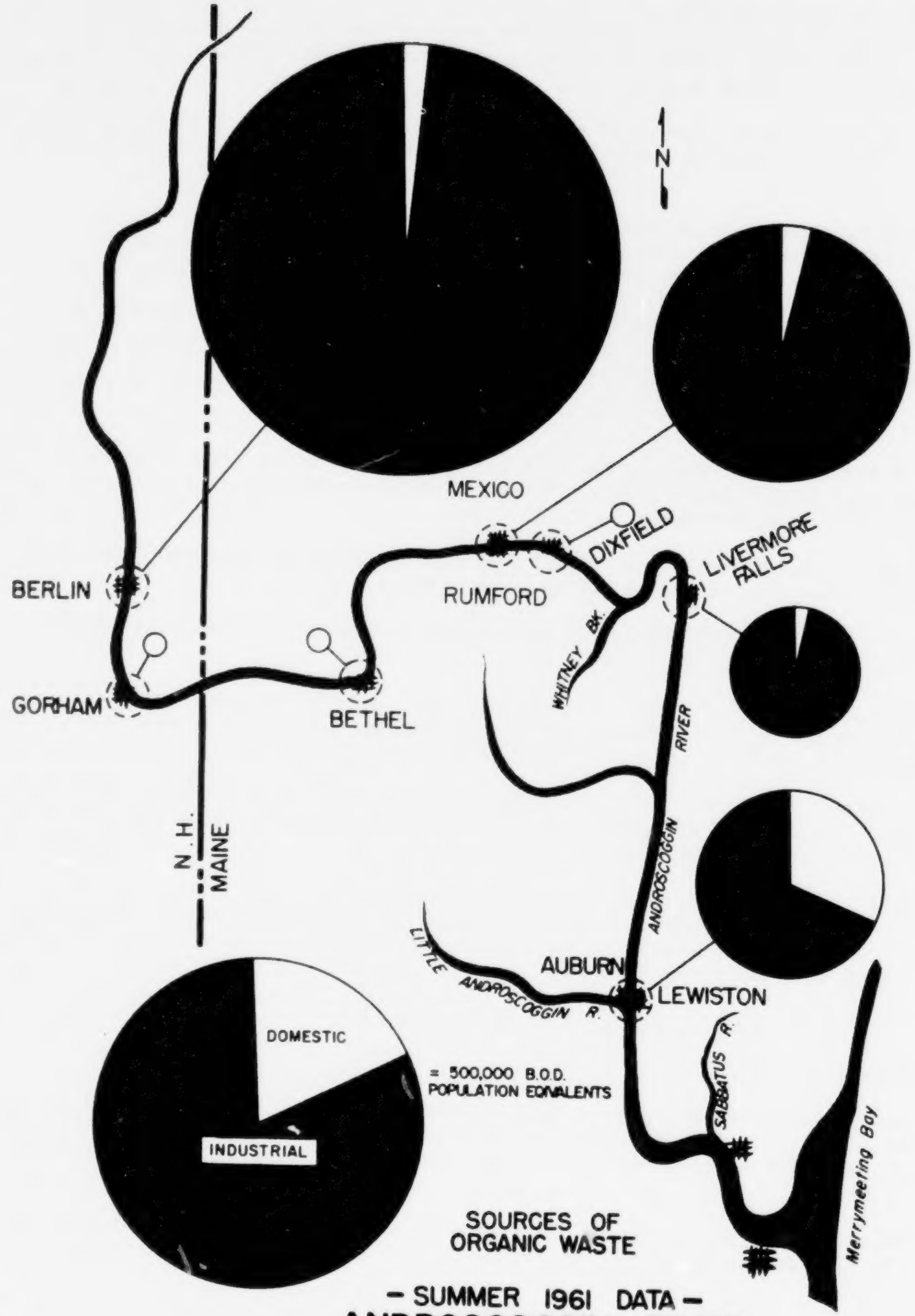
Little Androscoggin River	River Mile	BOD POPULATION EQUIVALENTS	
		Individual Sources	Total for Area
South Paris A. C. Lawrence Leather Co. Burnham & Morrill Co.	27-23	1,500 (1)	
Oxford (T) Robinson Mfg. Co.	27-19	D.N.A. (3)	
Mechanic Falls Water Falls Tissue Co.	27-12	1,400 (1)	
Poland (T) Rogers Fibre Co., Inc.	27-11	D.N.A. (3)	
Norway	27-22	2,800 (1)	
Sub-Total (Lewiston-Auburn area and Little Androscoggin River, municipalities and industries)			168,000
Municipal - 51,200 (1) Industry -116,800 (2)			
Totals (1) 84,700	(2) 1,390,200	1,474,900	

(1) Municipal Sewage
(2) Industrial Waste
(3) D.N.A. Does not apply -- Municipal sewage not discharged to stream.

Available data do not permit a complete breakdown of the industrial contributions. Data listed in Table 4 have been calculated from stream data collected during the summer of 1961, and the most recent information available on sewered populations for the municipalities.

Chart 3 presents the Biochemical Oxygen Demand population equivalents from each area.

(Chart 3 is as follows:)


N
MEXICO
DIXFIELD
LIVERMORE FALLS
BERLIN
RUMFORD
WHITNEY BK.
GORHAM
BETHEL
RIVER
N.H.
MAINE
ANDROSCOGGIN
LITTLE ANDROSCOGGIN R.
AUBURN
LEWISTON
SABBATUS R.
DOMESTIC
= 500,000 B.O.D. POPULATION EQUIVALENTS
INDUSTRIAL
Merrymeeting Bay

SOURCES OF ORGANIC WASTE

– SUMMER 1961 DATA –

ANDROSCOGGIN RIVER

NEW HAMPSHIRE – MAINE

CHART 3

MR. SIDIO: Calculations were based on 1961 river data and sewered populations. Here the areas of the circles indicate the relative organic contribution from each area. The shaded areas represent the industrial portions of the total contributions, and the clear areas the municipal sewage portions.

The colored portion here represents the industrial portion of the organic load discharged to the stream at each of these points. The clear or uncolored area indicates the municipal discharges.

The Biochemical Oxygen Demand reduction rates were calculated for the river sections below the major sources of wastes. By projecting the loads at the calculated rates to the source, the organic contribution of each area was determined. The results obtained by this method are the values used in Table 4, and indicated on Chart 3. Domestic and industrial wastes have been differentiated using sewered population figures for the municipalities. The data available indicate that a total organic load equivalent to that from a population of 1,475,000 was discharged to the river from Berlin to a point below the Lewiston-Auburn area. Wastes entering below the Little Androscoggin River confluence have not been included.

A total of 908,500 population equivalents was discharged to the river from the Berlin and Gorham area in New Hampshire. Of the load, 891,000 population equivalents were discharged by the Brown Company.

In the Mexico-Rumford area a load of 318,000 population equivalents was discharged. Of this, 307,000 were discharged by the Oxford Paper Company.

At Livermore Falls, 78,000 population equivalents were discharged with the International Paper Company contributing 75,400.

The total population equivalents discharged in the Lewiston-Auburn area, including the wastes discharged by municipalities and industries on the Little Androscoggin, amounted to 168,000. Industry accounted for 116,800 of this number.

In the reach from Berlin to the point below the confluence with the Little Androscoggin (below Lewiston-Auburn) industry discharged 94 percent of the organic load and municipal sewage accounted for 6 percent.

Of the 1,475,000 population equivalents discharged to the river in the reach from Berlin to below Lewiston-Auburn, 908,500 were discharged in New Hampshire, and 566,500 in Maine. The organic load from industry amounted to 1,390,200 population equivalents, and municipal sewage amounted to 84,700.

EFFECTS OF WASTES ON WATER QUALITY

BIOCHEMICAL OXYGEN DEMAND (B.O.D.)

The desirable limits of Biochemical Oxygen Demand present in the river would be that quality which would not lower the dissolved oxygen content of the river below 5 milligrams per liter. The 5 milligrams per liter value is used in consideration of the requirements for anadromous fish.

The average load during 1961 in "population equivalents," based on 0.167 pounds of 5-day 20°C B.O.D. per capita, carried by the river at each of the stations, is presented in Chart 4.

(Chart 4 is as follows:)

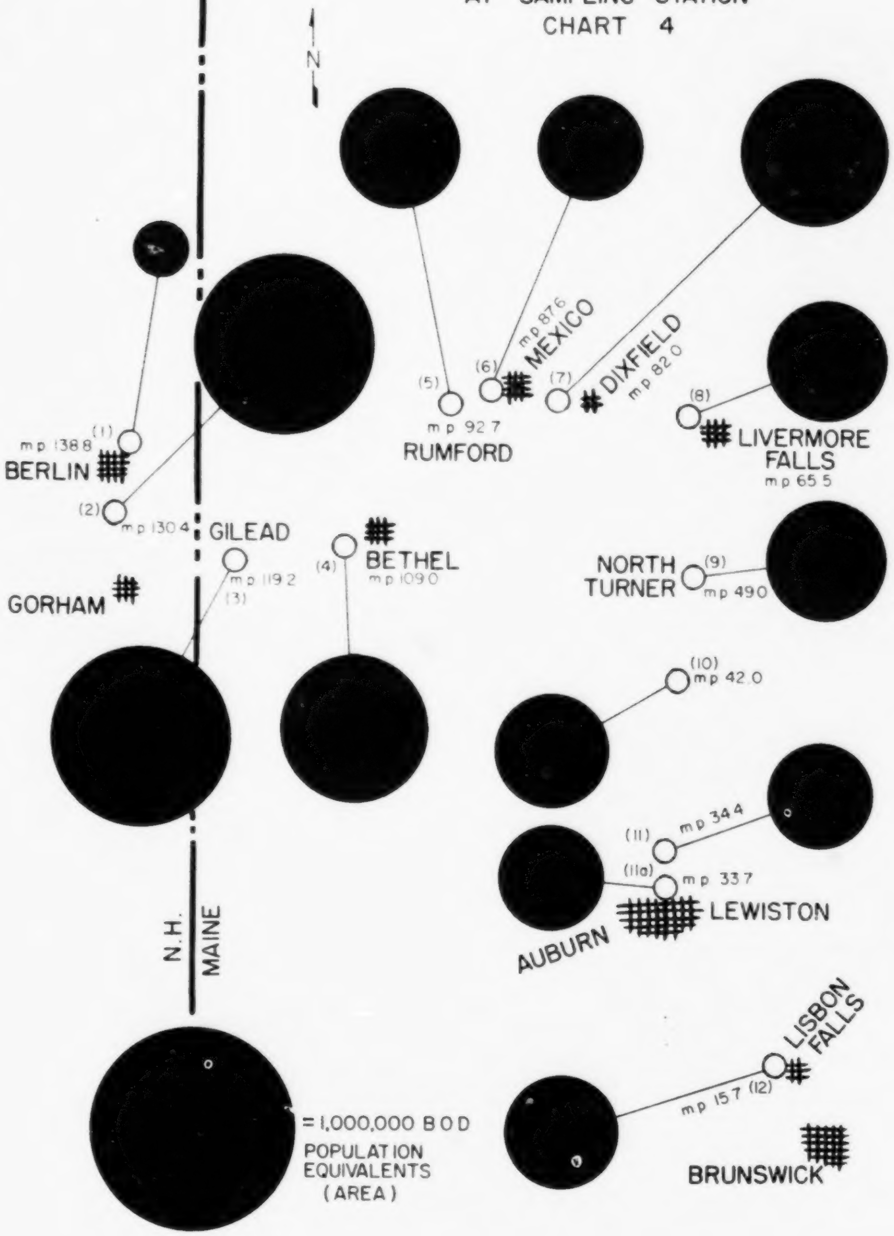
B.O.D. LOADS

ANDROSCOGGIN RIVER

NEW HAMPSHIRE — MAINE

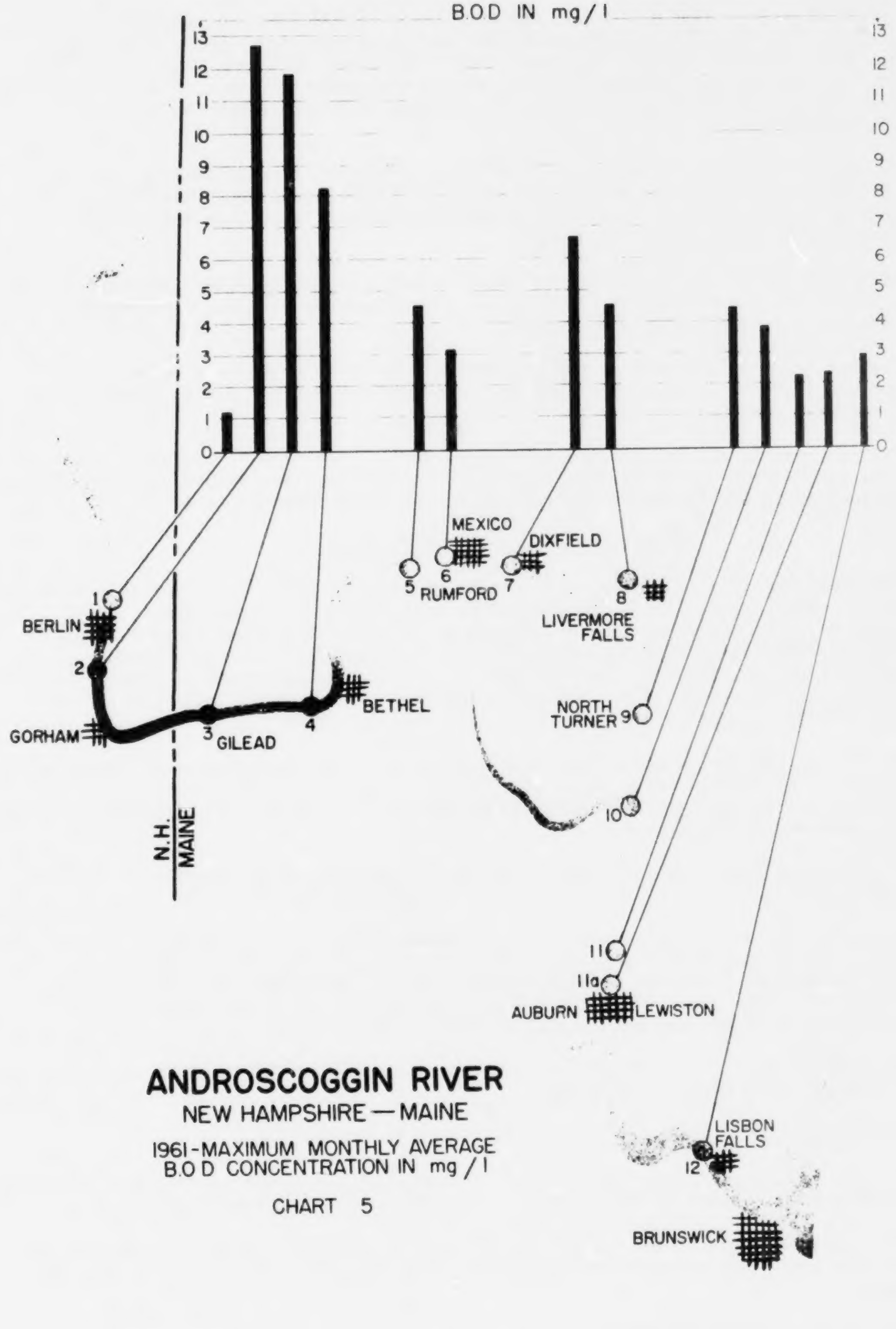
1961 MEAN SUMMER LOAD
AT SAMPLING STATION

CHART 4


N
(1) mp 138.8
BERLIN
(2) mp 130.4
GILEAD
mp 119.2 (3)
GORHAM
(4) BETHEL mp 109.0
(5) mp 92.7
RUMFORD
(6) mp 87.6 MEXICO
(7) DIXFIELD mp 82.0
(8) LIVERMORE FALLS mp 65.5
NORTH TURNER (9) mp 49.0
(10) mp 42.0
(11) mp 34.4
(11a) mp 33.7
AUBURN
LEWISTON
LISBON FALLS
mp 15.7 (12)
BRUNSWICK
N.H.
MAINE
= 1,000,000 B.O.D. POPULATION EQUIVALENTS (AREA)

MR. SIDIO: Maximum monthly averages of B.O.D. concentrations at each station during 1961 are presented in Chart 5.

(Chart 5 is as follows:)



ANDROSCOGGIN RIVER
NEW HAMPSHIRE — MAINE

1961-MAXIMUM MONTHLY AVERAGE
B.O.D CONCENTRATION IN mg/l

CHART 5

MR. SIDIO: The Chart No. 4 with the circles on it indicates the population equivalents carried at each of the sampling stations used along the river in collecting data during the months of June through September 1961. The chart here indicates the maximum monthly average during that summer, that is, during the summer of 1961, in concentration. In other words, at Station 2 below Berlin, the maximum monthly average was about 12.7, or 12.7 milligrams per liter.

The highest values obtained were at Station 2 (MP-130.4) below Berlin. The average B.O.D. load was 136,000 pounds per day, or 820,000 population equivalents. The average concentration for the summer was 11.2 milligrams per liter, and the highest monthly average 12.7 milligrams per liter.

At Station 3 (MP-119.2) Gilead, the first station below the State line, the average residual B.O.D. was 9.9 milligrams per liter or 122,000 pounds per day. The maximum monthly average was 11.8 milligrams per liter.

Station 4 (MP-109.0) Bethel, had an average concentration for the summer of 7.7 milligrams per liter or 98,000 pounds per day. The maximum monthly B.O.D. concentration was 8.2 milligrams per liter.

Maximum monthly B.O.D. averages from below Berlin, R.M. 130.4, to Turner Center, R. M. 42.0, ranged from 3.1 to 12.7 milligrams per liter. Maximum values occurred at the three stations below Berlin and at Dixfield below the Rumford-Mexico area.

Comparison, 1941-1961 B.O.D. Data

Data included in Bulletin No. 1 of the Maine Sanitary Water Board indicate that an industrial waste load of 1,576,000 population equivalents was discharged to the Androscoggin River from the Berlin and Gorham area in 1941. The Brown Company Burgess Mill at Berlin discharged 1,006,000 population equivalents, and the Brown Company Cascade Mill at Gorham, 568,000. In 1961 the mill at Berlin discharged an average load of 891,000 population equivalents. The reduction from 1,576,000 population equivalents in 1941 to 891,000 population equivalents in 1961 amounted to 43 percent.

In 1941 an industrial waste load of 659,000 population equivalents was discharged to the river in the Rumford area. Data in 1961 indicated an industrial waste load of 307,000 population equivalents. At Rumford the reduction of population equivalents discharged amounted to 53 percent.

At Livermore Falls the 1941 industrial B.O.D. load was 96,700 population equivalents, and in 1961 was 75,400. This amounted to a reduction of 22 percent.

Total industrial discharges from Berlin, Rumford and Livermore Falls in 1941 equaled the organic load from a population of 2,331,000. In 1961 these industrial discharges amounted to 1,273,400 population equivalents. The reduction of the organic load discharged to the river amounted to 45 percent, as opposed to the more commonly quoted reduction of 95 percent based on waste sulfite liquor discharges.

MR. STEIN: Again here, Mr. Sidio, I wonder if I can interrupt? This is largely for clarification more than anything else.

On Page 4 of your statement, if you will turn to it, you say,

"...the sulfite pollution load to the river during the summer of 1961 was estimated to have been reduced to about 5 percent of that during the summer of 1941."

As I understand you, here you are saying that in accordance with the analysis you have made they have just been reduced 45 percent, that is, 55 percent of the wastes are still there.

How do you account for that?

MR. SIDIO: The 95 percent figure accounts for the reduction in waste sulfite liquor only, and does not take into consideration the total pollutional load entering the river, specifically from the pulp and paper mills.

MR. STEIN: Which do you regard as the significant figure?

MR. SIDIO: As far as the condition of the stream is concerned, the significant figure is the total pollutional or total organic load in this case going into the river.

MR. STEIN: And you would say the reduction is about 45 percent?

MR. SIDIO: The reduction in the pollutional load in the river is about 45 percent.

MR. STIEN: All right. Thank you.

MR. SIDIO: DISSOLVED OXYGEN (D.O.)

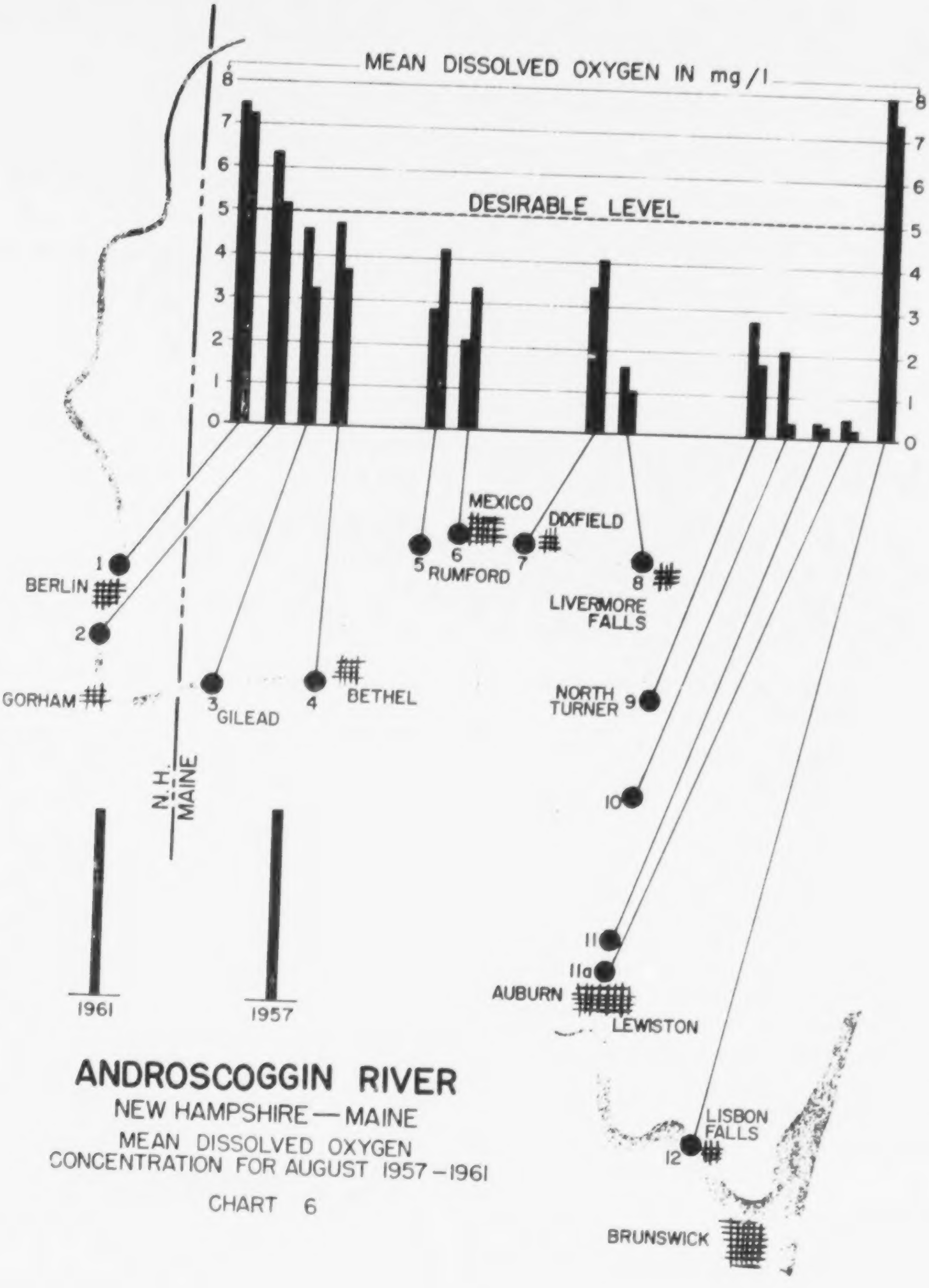
Dissolved oxygen concentrations have been of primary concern in the pollution control measures provided along the Androscoggin River. Pollution, specifically from the pulp and paper mills, has been regulated to prevent the complete loss of dissolved oxygen in the river.

The absence of dissolved oxygen in the river during the summer months of the early 40's and in later years permitted the development of the obnoxious conditions. During the summers from 1948 through 1960 (with the exception of 1954) sodium nitrate was added to the river to prevent the formation of hydrogen sulfide resulting from complete dissolved oxygen depletion. During the summer of 1961 the use of sodium nitrate was discontinued, though a supply was maintained by the pulp and paper companies.

The desirable objective of dissolved oxygen content is 5 milligrams per liter for the propagation of fish life.

Chart 6 presents a comparison of average dissolved oxygen concentrations for August 1957 and August 1961.

(Chart 6 is as follows:)



ANDROSCOGGIN RIVER

NEW HAMPSHIRE — MAINE

MEAN DISSOLVED OXYGEN
CONCENTRATION FOR AUGUST 1957 - 1961

CHART 6

MR. SIDIO: This is Chart 6. Again each of the stations that were used in collecting the 1961 data is shown with the mean dissolved oxygen in milligrams per liter, during the month of August, the one to the left being the year 1961, and the one to the right being for the year 1957.

Average dissolved oxygen concentrations during August 1961 were below 5 milligrams per liter at Station 3, Gilead, through Lewiston.

At Station 5 (MP-92.7), Rumford Point, 13 of the 18 samples considered in 1961 contained less than 5 milligrams per liter. A minimum value of 1.3 milligrams per liter was recorded during August.

At Station 6 (MP-87.6) Rumford, the D.O. dropped below 1 milligram per liter in one sample, and 12 of the 18 samples had less than 5 milligrams per liter.

In 1930 Professor Charles Walker found the dissolved oxygen content of the river just above Rumford to be 4 ppm. In his report Professor Walker stated that joint action of the States of New Hampshire and Maine would be required should the load of the stream be materially increased. The 1961 data indicate 11 of the 18 samples above Rumford from June through September contained less than 4 milligrams per liter.

The court decree of 1948 required that 4 ppm of dissolved oxygen be maintained at the North Turner Bridge. During the 1961 sampling period the minimum dissolved oxygen at Station 9, North Turner, was 1.83 milligrams per liter. Average values were 2.64 and 3.31 milligrams per liter for August and September respectively. None of the samples during August and September contained as much as 4 milligrams per liter.

Bulletin No. 1, as the result of the 1941 Metcalf & Eddy study, included the following proposal. I quote from that proposal:

> "Taking into consideration the value of the stream for the disposal of wastes and sewage on the one hand, and the hazard to public comfort and health on the other, it is our conclusion that the river should not be so polluted as to constitute a public nuisance, but that it would be impractical at present to reduce the pollution to the extent necessary to make the river below Berlin a stream fit for fishing or other recreational purposes. We propose, therefore, that the criterion for control of pollution be the maintenance, at all times at all points, of dissolved oxygen in the river water in the amount of approximately 2 parts per million."

During the 1961 sampling period, dissolved oxygen concentrations of less than 2 milligrams per liter occurred in one or more samples at Stations 5, 6, 8, 9, 10, 11, 11A, and 11B, which is not shown on this chart here. At Station 11 (Gulf Island Dam) nine consecutive samples during July and August contained less than 1 milligram per liter of dissolved oxygen, and from July to late September the dissolved oxygen was less than 2.0 milligrams per liter in all weekly samples. Dissolved oxygen values as low as 0.20 milligrams per liter or 2 percent saturation were recorded.

All samples during July and August at the Deer Rips and Lewiston Canal stations contained less than 2 milligrams per liter and were generally below 1 milligram per liter.

At Station 12 (MP-15.7) Lisbon Falls, dissolved oxygen levels recovered to near saturation values.

Minimum dissolved oxygen values obtained during 1961 from Rumford Point (Station 5) downstream through Lewiston (Station 11A) were just barely sufficient to prevent the formation of anaerobic conditions in the river.

Dissolved oxygen used in the stabilization of organic matter is replaced through reaeration. The rate of this oxygen replacement depends on a number of factors, such as the degree of oxygen depletion, temperature, and surface area in contact with the atmosphere. Increased depths, such as those in the Gulf Island Pool, decrease the rate of reaeration of the river water above the Lewiston-Auburn area.

According to the U. S. Fish and Wildlife Service in Boston,[5]

> "The Androscoggin River formerly supported runs of anadromous fish such as Atlantic Salmon, American Shad, alewife, and American Smelt. These species have been eliminated from the river for a long time due to pollution and the construction of dams without fish passage devices.
> ...this pollution is largely responsible for the depletion of fishery resources other than the anadromous species.
>
> "The major obstacle to any anadromous fishery restoration program remains the pollution problem."

COLIFORM BACTERIA

Only sewage discharges from municipalities were considered as sources of bacterial contamination. No stream data on bacteriological determinations were available for the preparation of this report. With sewered population figures and stream flows available, coliform bacteria densities in the receiving stream can be estimated with reasonable assurance. Estimates for the Androscoggin have been based on sewered population figures listed in Table 3, and flow data for August 1959.

Chart 2 depicts the bacterial population equivalents discharged by each of the municipalities. The areas of the circles are in proportion to the qualities discharged by the various sources.

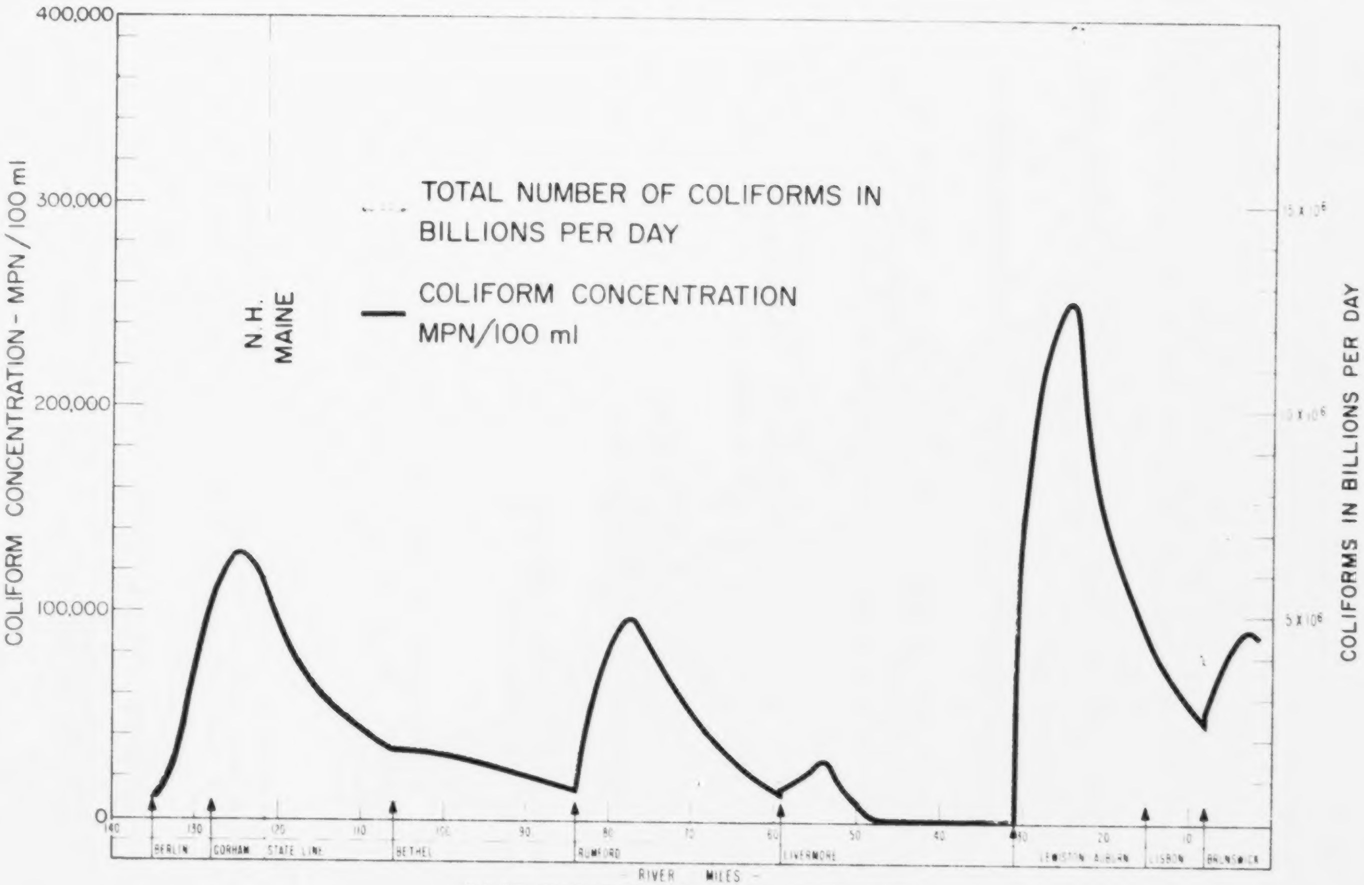
A maximum density of 5,000 coliform bacteria per 100 milliliters is generally accepted as satisfactory water to be treated for potable supplies. A limit of 1,000 coliform per 100 milliliters is generally accepted in other areas for swimming and other recreational uses requiring contact with water. Class C of the Maine "Standards of Classification" requires a quality satisfactory for recreational boating, fishing and other uses except potable water supplies and swimming unless adequately treated to meet standards. Class A of these standards is the only class specifically permitting bathing. Class A requires not more than 100 coliform bacteria per 100 milliliters.

Calculated coliform bacteria densities per 100 milliliters and total coliforms per day from above Berlin to the mouth at Merrymeeting Bay are presented in Chart 7.

(Chart 7 is as follows:)

---

[5] Letter addressed to Mr. Lester Klashman, U. S. Public Health Service, 42 Broadway, New York 4, New York (Signed by M. A. Marston, Chief, Division of Technical Services, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, 59 Temple Place, Boston, Massachusetts). Dated June 15, 1962.



ANDROSCOGGIN RIVER

NEW HAMPSHIRE - MAINE

AUGUST 1959

CHART 7

MR. SIDIO: This is Chart 7. It reads from the left. The darker line indicates the coliform concentration at each of the points going downstream from below Berlin. The red line here indicates the total number of bacteria passing any given point on the river in a period of 24 hours, or in a period of one day.

At no point from Berlin to the mouth did the calculated density of coliform bacteria drop below 15,000 per 100 milliliters except in the lower portion of the Gulf Island Pool. The calculated coliform densities exceeded 5,000 per 100 milliliters by 3 to 50 times.

Below the Berlin-Gorham area the calculated density of coliform bacteria was 130,000 per 100 milliliters, or about 65 coliforms per drop. A density of 115,000 per 100 milliliters was calculated at the State line.

The peak below the Rumford-Mexico-Dixfield discharges was calculated at 97,100 coliforms per 100 milliliters.

A maximum density of 253,000 coliform per 100 milliliters was calculated at a point approximately 6 miles downstream from the Lewiston-Auburn area. This calculation included the contribution of those municipalities discharging sewage to the Little Androscoggin.

At a point approximately two miles from the mouth of the river a density of 93,100 coliform bacteria per 100 milliliters was calculated. The density would be slightly less at the mouth, about 85,000 per 100 milliliters, as the river discharges to Merrymeeting Bay.

The 101,400 persons discharging sewage to the Androscoggin River from Berlin to Brunswick contribute a total of 40,560,000 billion coliform bacteria to the river each day. New Hampshire communities discharge 7,000,000 billion per day, and Main communities 33,560,000 billion per day.

The river is not suitable bacteriologically for use as a source of domestic water supply, swimming, general recreation, and certain industrial supplies.

COLOR

Color determinations during the 1961 sampling period indicated a general increase throughout the reach considered. The range was from 37 color units above Berlin to a maximum of 114 units below Rumford. The presence of color detrimentally affects the aesthetic value of the stream.

PHYSICAL OBSERVATIONS

Visual observations were made of the river from above Berlin, New Hampshire, to Rumford, Maine, on April 11, and from Rumford to the Lewiston-Auburn area on April 12, 1962.

Flow during this period was much higher than average.

Odors were present in the vicinity of the pulp and paper plants. A strong odor existed in the Rumford area. It is probably that these odors were from the atmosphere rather than from the river.

Foaming was observed in the rapid areas of the river and below the dams and falls. Below the points of heavy turbulence foam covered a large portion of the river and was observed at points several thousand yards downstream.

The river water appeared quite dark and unattractive from Berlin to Lewiston because of the color.

One sign was observed along the river that read:

"REFLECTION POND"

Water Polluted
Not Fit For
Drinking or
Swimming.

WATER USES

The fall of 1,090 feet in the river from Berlin to Brunswick provides the necessary energy for the hydroelectric plants in the basin. Hydroelectric developments have a capacity of about 150,000 kilowatts, by utilizing approximately 790 feet of the total fall.

The river is used extensively for the disposal of municipal sewage and industrial wastes. No treatment is provided the sewage discharged from the communities in New Hampshire. In Maine, with the exception of a small part of one community, no treatment is provided the municipal sewage discharged to the river. Process changes, chemical recovery, lagooning, controlled discharge, and regulated production are some of the methods used in reducing industrial waste discharges.

Use is made of the river water as an industrial source where a higher quality is not required.

Total industrial and municipal uses in the basin amounted to 171 million gallons per day (mgd) in 1954. Of this amount, 159 million gallons per day was used by industry. Pulp and paper mills used 93 percent of the 159 million gallons per day, textiles 3 percent, food processing 1 percent, and other industries 3 percent.[4]

DAMAGES TO WATER USES

The amount of raw sewage and industrial waste discharged to the Androscoggin River from Berlin to Merrymeeting Bay causes sufficient pollution to preclude water uses except those requiring only the low quality available.

At the present time no municipal water supplies are taken directly from the Androscoggin River between Berlin and Merrymeeting Bay. Of the people served by municipal systems along the reach 70 percent utilize surface supplies drawn from tributary streams. The remaining 30 percent obtain their supplies from ground sources or combinations of ground and surface sources.

In 1959 a sampling program in Maine, including the Rumford area, disclosed that 99.2 percent of all samples from drilled wells, and 84 percent of the samples from dug wells, contained concentrations of Radon 222 and daughter products exceeding 2,000 micromicrocuries per liter ($\mu\mu c/l$).[6] In addition the average Radium-226 activity found in 33 drilled wells and 19 dug wells was 66 and 73 micromicrocuries per liter respectively. The maximum permissible concentration (MPC) for Ra-226 in domestic water supplies is 3.3 micromicrocuries per liter.[7]

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[4] "The Resources of the New England-New York Region, Part 2, Chapter VII, Androscoggin River Basin, Maine-New Hampshire." New England-New York Inter-Agency Committee. (Revised May 1954, July 1954, October 1954).

[6] Smith, Benjamin M., et al, "Natural Radioactivity in Ground Water Supplies in Maine and New Hampshire." Journal AWWA, Vol. 53, No. 1. (January 1961).

[7] International Commission on Radiological Protection, "Report of Committee II on 'Permissible Dose for Internal Radiation'.", Pergamon Press. (1959).

The radioactive qualities of ground water in the area limits additional development of this source of water supply.

It has been reported that Rumford and Mexico are seeking replacement or additional water supply. The logical source is the Androscoggin River.

In a letter dated December 13, 1960, addressed to "Hearing Officer, Public Hearing on Androscoggin River Basin, Lewiston, Maine," and signed by the Superintendent, Brunswick-Topsham Water District, and marked Exhibit No. 3 of the hearing December 14, 1960, the following was included:[8]

> "Apart from the health hazard of pollution in general, some of the pollutants of the Androscoggin are of a nature that makes them difficult, if not impossible, to remove by present day water treatment methods. So in spite of the fact that several thousand times the required water supply flows daily by in the Androscoggin River, the Water District has spent in excess of $60,000 in unfruitful exploration of ground water supplies.
>
> "While the water supply of the District is adequate to meet the normal demands of the near future, it would not be adequate to attract a water-using industry, as would be the case if the river water could be used with a filtration plant."

At this same hearing a statement by the Honorable Emile Jacques, Mayor of the City of Lewiston, (marked Exhibit No. 4), included the following:

> "For a long time now, we have been annoyed by a filthy and foul river running between our cities of Lewiston and Auburn. The existence of such conditions as are found in this river has tragic consequences on the social and economic life of the entire area. Pollution, blight and their by-products are barriers to the growth of any community, and the notoriety of the Androscoggin River has damaged the reputation of our city. There is a lack of water for the use of industry in our community. This imperils the operations of our present industries and hampers the expansion we must plan if we are to meet the demands of the future."

Merrymeeting Bay is the junction of the Kennebec, Androscoggin, Cathance, Abagadasett and Eastern Rivers. It is world-famous for its duck hunting and waterfowling. Along the shores of the bay are hundreds of cottages, farms and summer homes where vacationers and duck hunters annually visit for sport and relaxation. Merrymeeting Bay, the tidal reaches of the Androscoggin and Kennebec Rivers, and the outlet of the bay to the ocean, have been closed to the harvesting of shellfish because of pollution.

The pollutional and physical blocks in the lower reach of the river prevent the passage of anadramous fish.

The 1954 Androscoggin River Basin Report, prepared by the New England-New York Inter-Agency Committee, states that a number of farms in the Basin reported that they were unable to use the stream water for stock watering because of industrial and/or municipal pollution.

Uses prevented, or interfered with by the existing quality, include:

1. Development as a public water supply.
2. General recreation.

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[8] Minutes of Public Hearing on Androscoggin River Basin for Flood Control and Allied Purposes. Before: Brig. General Seymour A. Potter, Jr., Presiding Officer, Berlin,* New Hampshire. (December 13-14, 1960). *(Dec. 14 meeting held at Lewiston, Maine.)

3. Development as industrial supplies requiring higher quality than that available.
4. Propagation of fish.
5. Passage of anadromous fish.
6. Harvesting of shellfish from the Merrymeeting Bay area.
7. Livestock watering.

SUMMARY AND CONCLUSIONS

An analysis of the existing chemical and physical data on the Androscoggin River obtained from the Offices of the Attorney General of Maine was made with particular consideration of the data for the summer months of 1961. Calculations were made to estimate the bacteriological effects on the river by municipal sewage discharges.

A continuing program to regulate pollution of the Androscoggin has been conducted by the States and industry since 1943. The program has been conducted under a series of decrees by the Supreme Judicial Court of Equity for Androscoggin County. The decrees have required the controlled discharge of sulfite waste liquors, the maintenance of a sampling and analysis program during the summer months by industry, and the construction of certain control facilities. One requirement for satisfactory control was that four parts per million of dissolved oxygen was to be maintained at North Turner, at the head of the pool formed by the Gulf Island Dam. Requirements of the court decrees have been supervised by a court-appointed administrator since 1948.

The controls placed on industry have been aimed at the prevention of a public nuisance, while continuing to use the river as a means of disposing of industrial wastes and municipal sewage. The "public nuisance" has been considered only in light of obnoxious odors, floating gas-lifted sludges, corroded metals and discolored paint. Reports indicate that the controls have succeeded in removing these extremely undesirable results of gross pollution.

Although the condition has been improved since 1940, analysis of the 1961 data indicates the Androscoggin River remains polluted. The pollution assimilation capacity of the river is so utilized that the quality is maintained at a level that will just prevent the development of obnoxious conditions.

The organic load discharged to the river from Berlin, New Hampshire, to a point below the Auburn-Lewiston area during the summer of 1961 was equivalent to that from a population of 1,475,000. Of this load, industrial wastes contributed 94 percent and municipal sewage 6 percent. Wastes having a population equivalent of 908,500 were discharged in New Hampshire.

Dissolved oxygen concentrations from Rumford Point to Lewiston were in general below 5 milligrams per liter, and frequently approached zero from Turner Center through the Lewiston stations.

Calculations of coliform bacteria densities indicate excessively high numbers of sewage bacteria present in the stream below the municipal discharges.

Additional data are needed to evaluate the significant industrial contributions other than the pulp and paper mills. Bacteriological data are needed to ascertain the behavior of the indicator organisms in this specific river. Biological studies are needed to determine the effect of the wastes on the aquatic life.

Pollution of the Androscoggin River was caused during the summer of 1961 by municipal and industrial wastes which:

1. Caused excessively high concentrations of oxygen demanding organic matter.
2. Depleted the dissolved oxygen content of the river to barely trace quantities below Rumford, in the Gulf Island Pool and in the Lewiston-Auburn area.

Dissolved oxygen content was depleted below the desirable 5 milligrams per liter from Station 3, Gilead, to below Lewiston and Auburn.

3. Caused excessively high densities of coliform bacteria.
4. Destroyed the aesthetic value of the river from Berlin to the mouth.
5. Prevented development of fishery resources.
6. Caused a pollutional block preventing the passage of anadromous fish.
7. Contributed to the polluted condition of Merrymeeting Bay resulting in the bay being closed to shellfish harvesting.
8. Caused the river to be of such low quality so as to prevent the potential development of municipal and industrial water supplies, and recreational uses.

Pollution of the Androscoggin River at the New Hampshire-Maine State line is evident. Pollution originating in New Hampshire damaged the water quality at the State line, and the residuals of this pollution along with the added wastes in Maine, contributed to the degraded quality of the mouth in Merrymeeting Bay.

Pollution by Berlin and Gorham, and the Brown Paper Company at Berlin, in New Hampshire, constitutes interstate pollution, subject to abatement under the Federal Water Pollution Control Act, since the health and welfare of persons, in a State other than that in which the pollution originates, is endangered.

That concludes my report, Mr. Chairman.

MR. STEIN: Thank you, Mr. Sidio.

(The appendices attached to Mr. Sidio's statement are as follows:)

APPENDIX A

Chemical & Physical Data
Max., Min. & Ave. Values
For months of June, July & Sept.
1957 through 1961

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 1 - River Mile 138.8

YEAR	MO.		FLOW c.f.s	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	1620	23	7.1	8.31	89	71	1.1	10	57	55
		MIN	1562	17	6.5	6.63	79	58	0.8	7	40	40
		AVE	1583	20	6.8	7.39	84	63	1.0	9	50	46
	JUL	MAX	1810	20	6.7	7.65	85	69	1.2	12	69	60
		MIN	1588	18	6.4	7.08	80	64	0.7	6	36	35
		AVE	1668	20	6.5	7.43	83	68	0.9	8	47	45
	AUG	MAX	1865	21	6.9	7.73	86	78	2.0	20	115	60
		MIN	1780	19	6.7	6.71	75	66	0.7	7	41	35
		AVE	1833	20	6.8	7.27	82	72	1.3	13	77	41
	SEP	MAX	1884	19	6.9	8.16	88	83	1.5	15	88	35
		MIN	1806	17	6.7	6.94	76	69	0.7	7	41	35
		AVE	1869	18	6.8	7.42	81	74	1.0	10	57	35
1959	JUN	MAX	6241	20	6.7	9.67	94	326	1.3	38	230	80
		MIN	1712	12	6.6	7.45	85	69	1.0	12	70	40
		AVE	3028	17	6.6	8.28	89	144	1.2	19	113	53
	JUL	MAX	4756	24	6.9	8.26	91	212	1.5	28	170	45
		MIN	1983	18	6.7	6.83	83	73	1.0	12	64	40
		AVE	2544	22	6.8	7.41	87	105	1.2	17	94	41
	AUG	MAX	2144	24	6.8	7.65	89	85	1.6	20	113	40
		MIN	1972	21	6.7	6.83	83	73	0.6	6	38	35
		AVE	2023	22	6.7	7.23	86	79	1.0	12	70	38
	SEP	MAX	2205	23	7.0	8.87	95	94	1.3	13	76	40
		MIN	1884	16	6.7	7.29	87	78	0.6	8	46	40
		AVE	2003	20	6.9	8.08	91	87	1.0	10	61	40
1960	JUN	MAX	2513	20	6.6	8.05	88	173	1.6	21	124	50
		MIN	1791	17	6.2	7.49	85	75	0.9	9	55	40
		AVE	2139	19	6.5	7.80	86	110	1.2	14	85	42
	JUL	MAX	2021	22	6.9	7.80	87	80	0.9	10	58	40
		MIN	1776	19	6.6	7.24	83	75	0.6	6	36	40
		AVE	1930	20	6.8	7.51	85	78	0.7	8	46	40
	AUG	MAX	1990	21	6.7	7.45	86	79	3.7	39	233	40
		MIN	1940	20	6.6	7.24	82	77	0.8	8	46	35
		AVE	1961	20	6.6	7.39	85	78	1.6	17	105	36
	SEP	MAX	2100	21	6.7	8.98	93	94	1.6	18	109	70
		MIN	1846	15	6.6	7.34	85	77	0.6	6	36	35
		AVE	1934	18	6.6	8.22	89	86	1.2	13	79	43
1961	JUN	MAX	3212	21	6.7	10.20	94	145	1.3	19	112	40
		MIN	2004	10	6.6	7.60	88	82	1.0	11	64	35
		AVE	2645	16	6.7	8.62	90	124	1.1	16	92	39
	JUL	MAX	1989	23	6.9	7.91	87	84	1.4	15	87	40
		MIN	1958	18	6.5	6.66	80	72	0.8	8	50	35
		AVE	1969	20	6.7	7.38	84	78	1.0	10	61	37
	AUG	MAX	2127	23	6.8	7.91	87	91	1.3	14	84	40
		MIN	2044	18	6.6	6.99	84	79	0.8	9	52	35
		AVE	2085	20	6.7	7.50	86	84	1.0	11	63	37
	SEP	MAX	2013	21	6.8	8.26	91	88	1.0	11	63	40
		MIN	1978	18	6.6	7.09	82	76	0.6	6	38	35
		AVE	1992	20	6.7	7.60	86	82	0.8	9	51	36

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 2 - River Mile 130.4

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	1888	22	6.7	4.30	50	44	32.6	301	1772	130
		MIN	1682	18	5.7	3.21	36	31	14.8	144	850	120
		AVE	1773	20	6.1	3.71	42	36	22.1	211	1238	126
	JUL	MAX	1996	20	6.5	5.49	60	54	25.1	271	1591	160
		MIN	1628	18	6.1	4.86	54	45	15.6	137	806	110
		AVE	1799	19	6.3	5.25	58	51	19.2	189	1111	125
	AUG	MAX	1872	21	6.6	5.71	62	57	27.3	276	1623	130
		MIN	1796	18	6.3	4.43	52	45	18.9	190	1117	90
		AVE	1846	19	6.5	5.22	58	52	23.8	237	1395	106
	SEP	MAX	1854	19	6.8	6.49	69	65	25.4	253	1487	110
		MIN	1816	16	6.5	5.18	58	52	19.7	197	1160	90
		AVE	1836	18	6.6	5.64	61	56	22.4	222	1304	98
1959	JUN	MAX	7045	21	6.8	10.45	99	398	19.6	373	2240	90
		MIN	1810	12	6.4	4.86	53	49	9.8	161	965	85
		AVE	3345	17	6.5	7.16	75	154	15.3	238	1430	89
	JUL	MAX	4888	25	6.7	8.90	96	235	17.8	199	1190	90
		MIN	2045	18	6.2	5.23	64	58	3.9	45	272	80
		AVE	2656	22	6.4	6.94	79	105	9.8	125	752	88
	AUG	MAX	2173	23	7.0	6.42	73	74	23.6	259	1550	110
		MIN	2014	21	6.5	4.55	54	50	5.1	60	358	80
		AVE	2062	22	6.7	5.71	66	64	13.6	150	896	90
	SEP	MAX	2378	22	6.9	7.19	76	79	23.8	248	1490	75
		MIN	1933	15	6.1	5.28	61	68	3.4	38	231	60
		AVE	2106	19	6.4	6.46	70	72	15.6	176	1050	70
1960	JUN	MAX	3380	20	6.6	8.54	91	148	17.8	278	1668	130
		MIN	1928	17	6.1	5.02	57	52	4.1	53	317	75
		AVE	2517	18	6.3	6.87	75	96	14.0	191	1147	90
	JUL	MAX	2104	22	6.7	7.87	86	83	18.4	202	1212	90
		MIN	1964	18	6.2	4.99	57	57	4.8	51	305	60
		AVE	2054	20	6.5	6.42	73	71	11.3	126	754	80
	AUG	MAX	2036	20	6.6	7.45	83	78	23.2	253	1518	85
		MIN	1940	20	6.2	5.33	61	57	6.2	65	391	70
		AVE	1993	20	6.4	6.21	70	67	13.3	143	861	80
	SEP	MAX	2270	21	7.0	7.87	83	97	14.0	146	876	100
		MIN	1890	15	6.1	5.49	64	58	9.6	100	599	45
		AVE	1996	18	6.6	7.02	76	76	11.3	122	732	74
1961	JUN	MAX	3542	21	6.8	9.63	95	170	13.7	176	1035	85
		MIN	2110	10	6.4	6.09	71	69	5.4	98	573	60
		AVE	2948	16	6.6	8.17	85	133	9.7	148	870	72
	JUL	MAX	2130	23	6.8	8.23	89	91	14.6	164	966	85
		MIN	2044	18	6.2	5.49	64	62	2.8	31	182	55
		AVE	2078	21	6.5	6.44	74	72	10.3	116	682	72
	AUG	MAX	2170	23	6.8	7.04	77	82	16.6	188	1105	95
		MIN	2096	18	6.3	5.64	67	64	10.7	122	720	75
		AVE	2125	21	6.5	6.34	73	73	12.7	146	856	81
	SEP	MAX	2044	21	6.8	6.93	75	75	13.4	146	857	80
		MIN	2012	18	6.5	5.43	63	60	10.8	119	701	55
		AVE	2027	20	6.6	6.34	72	69	12.3	135	793	66

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 3 - River Mile 119.2

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	1906	22	6.4	4.24	45	41	21.1	203	1197	130
		MIN	1747	17	6.1	0.55	6	5	12.5	128	752	110
		AVE	1834	20	6.2	2.13	23	21	15.5	153	897	120
	JUL	MAX	2056	20	6.5	4.66	52	49	24.7	274	1612	120
		MIN	1644	18	6.2	2.59	28	24	9.6	85	501	100
		AVE	1867	19	6.4	3.47	38	35	14.2	147	864	113
	AUG	MAX	1909	21	6.5	4.24	45	42	22.2	222	1303	130
		MIN	1801	17	6.3	2.07	24	21	16.0	158	926	100
		AVE	1859	19	6.4	3.25	36	33	18.1	181	1066	112
	SEP	MAX	1848	18	6.8	4.61	49	46	20.4	200	1174	110
		MIN	1812	16	6.3	3.62	38	36	12.6	126	739	90
		AVE	1832	17	6.5	4.06	43	40	17.8	176	1035	100
1959	JUN	MAX	7573	21	6.5	9.94	94	406	15.6	397	2333	90
		MIN	1866	17	6.4	3.13	35	32	9.7	141	828	80
		AVE	3522	18	6.6	5.99	62	146	12.6	215	1266	85
	JUL	MAX	4927	25	6.6	9.00	97	239	19.0	213	1252	90
		MIN	2069	18	6.[illegible]	3.21	39	36	2.5	48	284	80
		AVE	2696	22	6.5	5.88	67	95	8.2	101	593	87
	AUG	MAX	2260	24	6.7	5.69	65	69	14.1	156	919	90
		MIN	2028	21	6.5	3.21	39	36	3.4	41	244	75
		AVE	2093	22	6.6	4.59	53	52	8.6	95	560	81
	SEP	MAX	3919	22	7.0	6.31	66	102	21.0	269	1581	80
		MIN	1969	14	6.3	4.81	55	58	3.0	35	205	70
		AVE	2520	19	6.5	5.55	60	73	13.6	180	1062	72
1960	JUN	MAX	4023	22	6.5	8.18	84	178	13.3	208	1248	140
		MIN	2017	16	6.1	3.42	39	40	2.1	29	172	70
		AVE	2750	18	6.3	6.15	65	97	9.6	140	837	93
	JUL	MAX	2162	22	6.7	7.14	77	81	14.3	166	995	90
		MIN	2094	18	6.3	4.14	45	48	2.6	29	176	80
		AVE	2130	20	6.5	5.44	60	62	8.6	99	593	86
	AUG	MAX	2087	21	6.6	5.83	65	64	17.1	61	366	90
		MIN	2003	20	6.1	3.35	38	37	4.3	13	80	75
		AVE	2040	20	6.4	4.63	52	51	9.8	35	211	88
	SEP	MAX	2853	22	6.6	8.18	83	126	11.2	120	720	90
		MIN	1920	14	6.3	4.14	48	45	6.5	68	406	60
		AVE	2174	18	6.5	6.20	65	75	8.5	98	590	76
1961	JUN	MAX	3661	22	6.9	10.01	91	177	10.1	146	860	80
		MIN	2164	10	6.3	4.97	57	58	5.1	97	570	60
		AVE	3100	16	6.6	7.71	78	133	7.2	117	688	71
	JUL	MAX	2239	23	6.7	6.93	76	78	19.6	237	1393	110
		MIN	2093	19	6.2	3.21	38	39	3.8	43	253	65
		AVE	2153	21	6.4	4.91	56	57	11.8	139	819	88
	AUG	MAX	2188	23	6.6	6.14	66	73	14.0	161	946	95
		MIN	2129	18	6.2	3.63	43	42	6.5	77	452	75
		AVE	2149	20	6.4	4.56	51	53	9.8	114	670	85
	SEP	MAX	2069	21	6.9	5.52	63	62	12.2	133	784	85
		MIN	2023	19	6.4	4.60	51	50	10.0	112	657	65
		AVE	2048	20	6.7	5.13	57	57	10.9	120	707	74

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 4 - River Mile 109.0

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	1951	22	6.5	4.24	46	42	21.4	210	1237	120
		MIN	1777	18	6.2	0.62	7	7	11.4	109	643	120
		AVE	1873	20	6.3	2.64	29	26	14.9	151	886	120
	JUL	MAX	2083	20	6.6	4.55	50	47	16.6	187	1098	120
		MIN	1652	18	6.3	3.11	35	28	9.0	82	483	100
		AVE	1899	19	6.5	3.82	43	39	11.9	121	710	108
	AUG	MAX	1931	22	6.6	4.47	47	45	14.8	149	874	120
		MIN	1804	17	6.5	2.59	30	27	13.0	127	745	90
		AVE	1866	19	6.6	3.67	40	37	13.8	139	819	102
	SEP	MAX	1849	18	6.7	4.97	52	49	18.6	184	1083	100
		MIN	1811	15	6.4	3.95	42	39	12.4	122	719	100
		AVE	1830	17	6.6	4.58	48	45	16.5	163	956	100
1959	JUN	MAX	7892	21	6.9	9.63	91	410	16.0	251	1510	100
		MIN	1900	12	6.4	4.39	50	45	5.9	95	575	60
		AVE	3630	18	6.5	6.30	66	151	10.6	171	1020	83
	JUL	MAX	4949	25	6.6	8.54	92	228	13.1	147	882	95
		MIN	2079	18	6.5	3.31	40	37	1.7	45	272	80
		AVE	2720	22	6.6	5.89	76	95	6.2	75	455	85
	AUG	MAX	2312	23	6.7	6.68	76	82	13.1	144	864	80
		MIN	2034	21	6.6	3.83	45	42	1.1	14	85	80
		AVE	2112	22	6.6	5.40	62	62	6.9	76	461	80
	SEP	MAX	4255	23	7.0	6.83	68	130	16.5	200	1200	85
		MIN	1991	14	6.3	5.49	64	65	2.3	27	162	70
		AVE	2621	19	6.6	6.02	65	84	11.0	146	859	78
1960	JUN	MAX	4317	22	6.5	8.23	83	192	12.5	172	1032	140
		MIN	2057	16	6.3	3.47	40	42	1.2	12	74	65
		AVE	2857	18	6.4	6.45	68	105	8.2	74	441	91
	JUL	MAX	2188	22	6.8	7.45	80	86	17.5	205	1230	100
		MIN	2154	18	6.6	4.61	52	54	2.5	29	174	80
		AVE	2165	16	6.6	5.95	66	69	8.1	95	568	88
	AUG	MAX	2110	21	6.7	6.60	73	73	14.2	158	948	95
		MIN	2015	19	6.4	4.24	48	47	2.9	32	193	75
		AVE	2057	20	6.5	5.42	61	60	8.3	92	550	86
	SEP	MAX	2980	21	6.7	8.28	84	200	7.8	198	1188	85
		MIN	1927	15	6.5	5.18	59	59	1.9	73	440	50
		AVE	2217	18	6.6	7.19	77	112	4.8	107	641	73
1961	JUN	MAX	3716	22	6.8	9.96	91	182	9.5	144	850	85
		MIN	2189	10	6.5	5.69	65	67	5.2	95	559	60
		AVE	3170	20	6.6	7.78	80	137	6.9	115	674	70
	JUL	MAX	2288	24	6.8	7.47	83	85	10.1	125	734	95
		MIN	2115	20	6.3	4.45	54	55	2.4	27	161	60
		AVE	2188	22	6.5	5.73	66	67	8.0	95	557	81
	AUG	MAX	2196	24	6.6	5.83	63	69	12.1	140	824	85
		MIN	2133	18	6.2	3.93	44	46	5.9	69	408	75
		AVE	2160	21	6.4	4.76	54	56	7.8	90	531	81
	SEP	MAX	2084	21	6.7	5.61	62	63	12.0	133	780	85
		MIN	2028	18	6.5	4.24	47	46	3.6	40	237	65
		AVE	2058	20	6.6	5.00	55	56	8.2	92	538	72

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 5 - River Mile 92.7

YEAR	MO.		FLOW c.f.s	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2240	22	6.5	3.45	36	38	20.8	220	1291	150
		MIN	1955	17	6.1	2.10	24	25	13.6	165	967	140
		AVE	2109	19	6.3	2.80	31	32	16.7	189	1115	145
	JUL	MAX	2303	20	6.9	4.92	55	60	10.0	121	713	140
		MIN	1696	18	6.6	2.90	31	36	6.1	56	328	80
		AVE	2087	19	6.6	3.85	42	43	7.9	91	535	105
	AUG	MAX	2060	21	6.9	4.73	51	47	7.8	87	510	100
		MIN	1819	17	6.5	3.20	36	36	5.2	53	312	60
		AVE	1901	19	6.6	4.18	45	43	6.2	64	374	80
	SEP	MAX	1859	19	7.0	5.35	59	54	5.8	56	330	110
		MIN	1793	15	6.7	4.45	45	43	5.0	50	295	75
		AVE	1818	17	6.8	4.96	52	49	5.5	54	316	88
1959	JUN	MAX	9793	20	6.8	8.30	78	439	7.8	185	1089	110
		MIN	2087	12	6.5	3.75	42	43	3.5	65	382	85
		AVE	4270	17	6.6	5.51	57	157	5.9	114	671	79
	JUL	MAX	5089	26	6.7	6.85	75	188	7.5	85	499	130
		MIN	2098	19	6.5	2.45	30	28	2.1	29	170	70
		AVE	2866	22	6.6	4.93	56	83	4.2	58	341	95
	AUG	MAX	2624	23	6.8	6.10	70	87	5.5	63	372	100
		MIN	2049	21	6.4	2.75	32	32	2.3	26	153	80
		AVE	2223	22	6.6	4.73	54	58	3.7	43	256	89
	SEP	MAX	6254	23	6.5	6.00	69	210	10.4	122	716	85
		MIN	2087	13	6.3	5.20	55	59	2.4	26	155	70
		AVE	3225	18	6.4	5.83	63	104	6.4	93	548	75
1960	JUN	MAX	6074	22	6.9	7.30	77	233	6.1	194	1164	100
		MIN	2300	14	6.5	4.10	47	56	2.1	72	196	60
		AVE	3493	18	6.7	6.00	63	119	4.9	91	547	75
	JUL	MAX	2510	22	6.9	7.20	76	98	7.0	90	538	90
		MIN	2271	17	6.7	3.45	40	42	2.0	27	163	75
		AVE	2373	20	6.8	5.19	58	67	4.3	55	330	84
	AUG	MAX	2249	21	6.9	6.30	68	74	6.2	70	421	85
		MIN	2084	18	6.6	3.40	37	38	1.9	23	178	70
		AVE	2155	20	6.8	4.92	54	57	4.1	47	287	81
	SEP	MAX	3737	22	7.0	7.10	75	140	4.7	54	327	80
		MIN	1967	14	6.5	4.35	49	48	2.1	22	139	50
		AVE	2469	17	6.7	6.36	66	86	3.4	44	268	68
1961	JUN	MAX	4648	20	6.8	8.50	77	192	6.8	114	668	85
		MIN	2385	10	6.3	4.80	53	62	2.7	68	398	65
		AVE	3709	16	6.6	6.71	68	139	4.5	84	492	71
	JUL	MAX	2585	22	6.8	6.50	70	79	5.6	73	427	110
		MIN	2235	18	6.5	2.93	34	41	2.0	24	143	60
		AVE	2368	21	6.6	4.24	48	53	4.4	56	332	94
	AUG	MAX	2263	23	6.8	3.90	43	47	5.8	70	411	110
		MIN	2158	18	6.4	1.30	15	15	3.5	42	248	75
		AVE	2227	20	6.6	2.76	30	33	4.5	54	316	92
	SEP	MAX	2173	22	6.8	4.80	55	55	3.9	44	261	80
		MIN	2058	18	6.5	2.80	31	31	1.6	18	108	70
		AVE	2118	20	6.7	3.74	42	43	3.1	36	210	71

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 6 - River Mile 87.6

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2260	24	6.6	2.35	25	26	16.6	198	1166	150
		MIN	1970	18	6.2	0.80	9	10	10.6	117	687	140
		AVE	2128	21	6.3	1.33	15	15	14.4	166	974	145
	JUL	MAX	2330	21	7.1	4.75	53	58	9.4	118	695	140
		MIN	1700	18	6.4	2.85	31	30	3.1	35	209	70
		AVE	2103	20	6.7	3.55	40	41	5.7	70	411	100
	AUG	MAX	2070	22	6.9	3.95	45	44	3.1	31	185	75
		MIN	1820	18	6.4	2.68	30	26	2.5	25	144	70
		AVE	1904	20	6.6	3.30	37	34	3.8	28	167	71
	SEP	MAX	1860	20	6.8	4.30	46	42	3.9	38	225	90
		MIN	1790	15	6.6	2.88	31	28	2.4	24	142	65
		AVE	1818	18	6.7	3.68	39	36	3.4	33	193	79
1959	JUN	MAX	9950	21	7.0	8.00	75	430	6.9	167	980	120
		MIN	2100	12	6.5	3.15	36	36	3.1	76	447	85
		AVE	4323	17	6.7	4.94	51	148	5.5	103	607	98
	JUL	MAX	5100	26	6.7	6.68	73	184	6.6	78	457	130
		MIN	2100	19	6.5	0.65	8	7	2.0	28	164	70
		AVE	2878	23	6.6	3.84	43	70	3.9	55	324	95
	AUG	MAX	2650	24	6.8	5.85	67	84	5.9	68	401	110
		MIN	2050	21	6.4	0.95	11	11	1.7	24	143	85
		AVE	2232	22	6.6	3.44	39	43	3.5	41	239	95
	SEP	MAX	6420	23	6.5	4.60	53	159	9.2	107	632	85
		MIN	2090	14	6.2	3.50	37	40	2.1	28	164	75
		AVE	3275	19	6.4	4.21	46	77	5.4	81	475	80
1960	JUN	MAX	6220	23	6.9	7.35	74	262	6.5	81	488	100
		MIN	2320	16	6.5	3.60	40	45	1.4	19	116	60
		AVE	3546	18	6.7	5.94	63	124	2.8	48	291	77
	JUL	MAX	2540	23	6.9	6.65	70	91	4.7	58	347	100
		MIN	2280	18	6.6	2.25	26	28	1.9	24	145	80
		AVE	2390	20	6.8	4.80	53	63	2.7	35	208	89
	AUG	MAX	2260	22	6.9	5.78	63	67	4.8	54	325	90
		MIN	2090	20	6.8	2.28	25	26	1.5	18	106	75
		AVE	2163	20	6.9	4.57	51	38	2.6	30	181	84
	SEP	MAX	3800	22	6.9	6.95	71	142	4.3	51	308	90
		MIN	1970	14	6.3	2.73	31	30	1.6	17	102	60
		AVE	2490	18	6.7	5.42	57	76	3.1	41	247	75
1961	JUN	MAX	4700	21	6.6	8.50	75	190	3.4	76	446	90
		MIN	2400	11	6.3	3.80	43	49	2.8	44	259	60
		AVE	3746	17	6.5	6.03	62	128	3.1	62	367	73
	JUL	MAX	2610	22	6.7	5.70	63	70	3.8	54	315	110
		MIN	2260	19	6.4	2.73	31	36	2.0	25	149	65
		AVE	2410	21	6.6	4.15	47	53	3.0	39	229	88
	AUG	MAX	2270	24	6.7	3.55	39	43	4.7	57	334	110
		MIN	2160	20	6.4	0.75	9	9	2.0	24	143	80
		AVE	2232	21	6.5	2.04	23	25	3.0	37	216	93
	SEP	MAX	2180	23	6.8	4.00	47	46	3.8	43	255	90
		MIN	2060	19	6.6	2.00	23	22	1.1	13	75	70
		AVE	2123	21	6.7	3.04	34	35	2.5	29	170	81

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 7 - River Mile 82.0

YEAR	MO.		FLOW c.f.s	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2422	25	6.6	3.30	36	42	18.8	214	1260	150
		MIN	2111	20	6.3	2.50	29	29	14.8	178	1048	140
		AVE	2283	22	6.4	2.91	33	36	16.2	198	1166	148
	JUL	MAX	2497	22	7.0	5.55	64	73	14.4	177	1039	140
		MIN	1822	21	6.5	3.30	37	35	8.0	79	463	80
		AVE	2253	22	6.8	4.11	47	50	10.9	134	791	110
	AUG	MAX	2236	23	7.0	4.52	53	55	13.8	150	883	90
		MIN	1951	20	6.6	3.70	43	37	8.6	91	533	70
		AVE	2044	22	6.8	4.02	46	44	12.1	134	786	80
	SEP	MAX	1994	21	7.1	5.20	56	55	17.2	178	1048	100
		MIN	1919	16	6.7	3.95	44	42	9.2	97	570	90
		AVE	1948	19	6.9	4.59	50	48	12.1	127	747	94
1959	JUN	MAX	10662	20	7.0	10.50	98	605	23.8	294	1727	110
		MIN	2240	12	6.6	3.40	37	41	5.1	148	869	85
		AVE	4626	17	6.8	6.52	66	209	12.7	226	1332	99
	JUL	MAX	5466	26	7.2	8.48	92	250	14.5	186	1094	150
		MIN	2240	19	6.6	2.10	25	26	6.3	94	553	75
		AVE	3078	22	6.9	4.87	55	94	10.2	155	910	109
	AUG	MAX	2957	24	7.0	5.98	67	92	17.4	210	1238	130
		MIN	2240	21	6.6	2.30	27	28	8.9	137	804	90
		AVE	2582	22	6.9	4.11	47	58	13.0	177	1042	110
	SEP	MAX	6877	23	6.8	7.00	79	260	27.8	338	1988	110
		MIN	2240	14	6.6	4.25	44	51	9.1	176	1033	95
		AVE	3511	19	6.7	5.23	57	110	15.7	254	1496	99
1960	JUN	MAX	6675	23	7.2	8.50	85	703	12.9	277	1662	120
		MIN	2486	16	6.9	4.20	46	118	4.9	105	630	65
		AVE	3799	18	7.0	6.55	69	374	9.3	177	1060	87
	JUL	MAX	2733	24	6.9	6.93	74	103	11.9	157	942	110
		MIN	2442	18	6.5	3.28	35	43	6.9	94	567	90
		AVE	2565	20	6.8	5.30	58	74	9.4	126	759	98
	AUG	MAX	2419	21	6.9	5.75	61	72	12.0	144	864	100
		MIN	2240	20	6.6	3.25	35	39	7.5	15	88	80
		AVE	2313	20	6.8	4.90	55	62	10.1	92	552	91
	SEP	MAX	4077	22	6.9	9.30	93	205	19.9	227	1362	100
		MIN	2106	15	6.4	5.33	61	64	5.3	117	702	80
		AVE	2670	18	6.6	7.08	74	107	13.2	175	1050	89
1961	JUN	MAX	5040	20	6.6	9.80	89	239	8.6	135	793	95
		MIN	2576	11	6.5	4.65	51	65	3.2	75	444	70
		AVE	4019	16	6.5	7.34	74	167	5.3	106	626	82
	JUL	MAX	2800	22	7.1	7.00	76	91	7.2	98	574	120
		MIN	2419	19	6.6	4.03	46	57	4.8	73	427	85
		AVE	2582	21	6.8	5.49	62	76	5.8	81	474	101
	AUG	MAX	2442	24	6.8	4.50	49	58	8.0	105	614	120
		MIN	2307	20	6.4	2.40	28	30	5.8	75	441	100
		AVE	2392	21	6.6	3.39	38	44	6.6	85	500	114
	SEP	MAX	2330	24	6.9	4.50	53	56	6.7	82	481	120
		MIN	2218	18	6.6	3.30	38	40	5.0	62	363	90
		AVE	2274	21	6.7	4.10	46	50	5.8	72	420	108

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 8 - River Mile 65.5

YEAR	MO		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2465	25	6.5	1.55	16	19	17.5	206	1209	160
		MIN	2149	18	6.4	0.30	4	4	11.8	157	924	140
		AVE	2324	21	6.4	0.73	8	9	14.7	182	1069	148
	JUL	MAX	2542	21	6.8	3.05	34	41	8.8	117	689	150
		MIN	1855	18	6.4	0.20	2	2	4.7	47	277	90
		AVE	2294	20	6.7	1.27	14	17	7.0	89	521	110
	AUG	MAX	2258	22	6.9	3.83	44	47	9.9	112	659	90
		MIN	1985	18	6.6	0.10	1	1	5.4	66	387	60
		AVE	2077	20	6.7	1.01	12	12	8.1	90	532	72
	SEP	MAX	2029	19	6.9	0.45	5	5	11.3	119	701	120
		MIN	1953	15	6.6	0.15	2	2	9.0	95	561	110
		AVE	1983	17	6.7	0.31	3	3	9.9	105	616	112
1959	JUN	MAX	10800	20	7.0	9.65	90	563	11.5	210	1235	100
		MIN	2280	12	6.8	1.95	21	24	3.6	109	643	85
		AVE	4700	17	6.9	5.16	52	184	7.7	148	868	93
	JUL	MAX	5620	26	6.9	6.55	72	199	10.8	139	816	140
		MIN	2280	20	6.7	0.20	2	2	3.4	78	460	70
		AVE	3156	23	6.8	2.87	32	63	6.6	100	589	104
	AUG	MAX	3020	25	6.9	4.43	50	70	8.5	105	616	120
		MIN	2280	21	6.6	0.35	4	4	3.8	58	342	85
		AVE	2635	22	6.8	1.71	19	26	5.8	80	471	106
	SEP	MAX	6880	23	6.6	4.60	53	171	13.8	265	1561	110
		MIN	3500	14	6.4	1.30	15	28	4.7	143	841	90
		AVE	4472	19	6.5	3.13	34	81	9.4	204	1199	96
1960	JUN	MAX	6818	23	7.0	7.00	71	212	8.0	246	696	100
		MIN	2540	16	6.9	3.65	42	52	3.3	75	147	60
		AVE	3880	19	6.9	5.15	55	114	5.9	127	481	78
	JUL	MAX	2791	24	6.8	5.65	61	85	6.7	92	555	110
		MIN	2494	19	6.7	1.08	12	15	3.5	51	305	80
		AVE	2620	21	6.8	3.18	35	46	5.2	75	451	91
	AUG	MAX	2471	22	6.7	2.43	27	32	6.2	79	472	100
		MIN	2288	20	6.6	0.98	11	12	3.7	49	293	80
		AVE	2363	21	6.7	1.85	21	24	4.6	60	362	89
	SEP	MAX	4164	22	7.0	8.28	83	186	10.0	150	900	110
		MIN	2151	15	6.4	1.05	12	13	3.7	55	328	80
		AVE	2727	18	6.7	4.55	46	75	6.5	95	569	90
1961	JUN	MAX	5148	21	6.5	8.68	81	214	6.8	109	643	95
		MIN	2631	12	6.4	3.95	44	56	3.0	72	425	65
		AVE	4105	17	6.5	6.34	65	147	4.5	93	545	76
	JUL	MAX	2860	23	7.0	5.75	63	77	5.0	72	421	110
		MIN	2471	20	6.6	3.05	35	44	4.1	56	330	80
		AVE	2637	22	6.8	4.41	50	62	4.4	62	366	94
	AUG	MAX	2494	24	7.1	2.23	25	28	6.3	83	490	120
		MIN	2357	21	6.4	0.45	5	6	3.4	45	264	100
		AVE	2444	22	6.9	1.49	17	20	4.5	60	350	112
	SEP	MAX	2380	24	6.7	2.65	30	34	4.5	56	330	110
		MIN	2265	18	6.5	0.90	10	11	1.9	24	141	90
		AVE	2322	21	6.6	1.93	22	24	3.2	40	233	100

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 9 - River Mile 49.0

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2512	24	6.4	1.90	20	23	17.6	208	1223	150
		MIN	2190	18	6.3	0.55	6	7	12.7	155	914	150
		AVE	2368	21	6.3	0.99	11	12	15.0	191	1121	150
	JUL	MAX	2590	22	6.9	2.80	31	39	9.9	138	814	150
		MIN	1890	20	6.5	1.05	12	10	4.2	43	252	90
		AVE	2337	21	6.7	2.06	23	27	7.8	102	599	105
	AUG	MAX	2301	22	6.9	2.75	32	34	5.4	67	395	90
		MIN	2023	18	6.4	0.65	7	7	3.8	42	245	60
		AVE	2116	20	6.6	1.67	19	19	4.6	53	312	70
	SEP	MAX	2067	19	6.8	2.02	22	23	6.2	67	393	110
		MIN	1990	17	6.6	0.80	8	9	4.3	47	276	100
		AVE	2020	18	6.7	1.36	15	15	5.3	58	338	102
1959	JUN	MAX	11057	20	6.9	9.55	89	142	7.9	116	682	110
		MIN	2323	12	6.8	2.85	31	36	5.0	28	168	80
		AVE	4797	17	6.8	5.90	60	69	6.4	82	483	195
	JUL	MAX	5668	26	6.9	7.95	86	243	5.7	104	612	120
		MIN	2323	19	6.7	1.45	17	18	3.4	61	372	75
		AVE	3192	23	6.8	4.12	47	85	4.5	73	431	99
	AUG	MAX	3066	24	6.9	5.85	67	93	5.2	65	384	120
		MIN	2323	21	6.7	1.20	14	15	3.5	49	286	85
		AVE	2677	22	6.8	3.06	35	46	4.0	57	337	106
	SEP	MAX	7000	23	6.6	4.60	53	173	13.8	177	1044	110
		MIN	2280	14	6.4	1.30	15	18	4.7	97	572	90
		AVE	3574	19	6.5	3.13	34	68	9.4	149	881	96
1960	JUN	MAX	6923	22	6.9	7.35	77	219	9.5	217	1302	100
		MIN	2579	18	6.7	4.65	51	65	3.9	78	468	60
		AVE	3940	20	6.8	5.73	62	125	6.3	129	775	81
	JUL	MAX	2834	24	6.8	7.35	80	112	7.2	99	592	110
		MIN	2532	20	6.5	2.43	12	33	3.2	49	294	90
		AVE	2660	22	6.7	3.96	44	63	4.7	69	413	99
	AUG	MAX	2509	22	6.8	4.80	54	65	4.3	54	323	90
		MIN	2323	20	6.7	2.95	33	36	2.6	34	203	85
		AVE	2399	21	6.8	4.10	46	53	3.2	42	250	88
	SEP	MAX	4228	22	6.8	8.78	88	200	9.4	139	834	100
		MIN	2184	15	6.4	2.85	33	35	3.4	42	253	80
		AVE	2769	18	6.6	5.40	56	88	5.4	78	470	87
1961	JUN	MAX	5227	21	6.6	9.33	87	235	6.0	113	665	90
		MIN	2671	12	6.3	4.00	45	58	3.2	79	467	65
		AVE	4167	18	6.5	6.75	70	160	4.4	94	550	74
	JUL	MAX	2904	24	7.0	6.03	66	82	4.9	72	424	110
		MIN	2509	20	6.7	4.10	47	60	3.2	45	264	80
		AVE	2678	22	6.8	5.14	59	74	4.1	60	353	90
	AUG	MAX	2532	24	6.8	3.00	34	40	4.2	56	332	110
		MIN	2393	21	6.5	1.83	22	24	3.1	42	249	100
		AVE	2481	22	6.6	2.64	30	35	3.7	50	291	106
	SEP	MAX	2416	23	6.8	3.83	43	50	4.3	54	320	110
		MIN	2300	19	6.6	2.30	26	29	2.3	29	173	90
		AVE	2358	21	6.7	3.31	37	42	3.4	43	253	102

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 10 - River Mile 42.0

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	2543	26	6.3	2.10	23	26	16.4	216	1271	150
		MIN	2217	19	6.2	0.20	2	3	10.4	129	758	140
		AVE	2397	22	6.2	0.73	8	9	14.1	183	1076	143
	JUL	MAX	2622	22	6.8	1.25	14	18	8.7	123	724	140
		MIN	1913	20	6.4	0.15	2	2	3.0	31	182	70
		AVE	2366	22	6.6	0.76	9	10	6.2	82	484	100
	AUG	MAX	2329	22	6.8	0.58	7	7	8.1	93	544	100
		MIN	2048	21	6.4	0.10	1	1	2.4	42	165	70
		AVE	2143	22	6.6	0.32	4	4	4.8	54	321	78
	SEP	MAX	2093	20	6.8	1.61	18	18	5.7	62	365	120
		MIN	2015	18	6.6	0.20	2	2	3.6	41	239	95
		AVE	2046	20	6.7	0.57	6	6	4.7	52	306	106
1959	JUN	MAX	11200	21	6.9	9.15	88	553	5.1	272	1601	100
		MIN	2355	13	6.6	2.55	29	32	4.0	51	299	75
		AVE	4865	18	6.8	5.64	59	192	4.6	120	708	89
	JUL	MAX	5740	27	6.8	6.90	76	214	3.9	99	583	110
		MIN	2355	20	6.7	0.50	6	6	2.4	32	187	80
		AVE	3233	24	6.7	2.94	33	66	3.0	54	315	96
	AUG	MAX	3110	25	6.9	4.60	53	74	3.8	57	336	120
		MIN	2355	22	6.7	0.30	4	4	2.4	31	185	90
		AVE	2720	23	6.8	1.66	20	26	3.1	45	263	105
	SEP	MAX	7230	23	6.5	4.15	48	162	9.3	129	2105	100
		MIN	2355	15	6.4	3.05	35	46	2.5	38	305	85
		AVE	3691	20	6.5	3.69	40	76	4.8	84	966	93
1960	JUN	MAX	7009	22	6.8	6.75	72	183	5.7	215	1290	100
		MIN	2611	18	6.6	4.00	45	56	2.3	35	425	60
		AVE	3989	20	6.7	5.27	58	114	4.6	97	581	80
	JUL	MAX	2869	23	6.9	6.30	69	98	5.2	72	431	120
		MIN	2564	20	6.7	2.25	26	31	2.8	41	244	85
		AVE	2693	22	6.8	3.52	40	52	3.6	52	311	99
	AUG	MAX	2540	23	6.8	4.63	52	63	5.1	65	389	110
		MIN	2352	22	6.7	2.05	24	26	2.6	36	214	90
		AVE	2429	22	6.8	4.90	34	40	3.5	45	269	95
	SEP	MAX	4281	23	6.8	8.60	86	197	7.0	109	654	110
		MIN	2211	16	6.3	1.40	16	18	2.8	63	378	85
		AVE	2804	19	6.6	4.46	46	77	5.4	78	465	96
1961	JUN	MAX	5292	21	6.6	8.95	87	231	5.5	115	674	85
		MIN	2705	14	6.3	4.20	47	61	2.7	61	361	60
		AVE	4219	18	6.5	6.35	67	152	3.8	83	488	71
	JUL	MAX	2940	26	7.0	5.15	58	71	4.3	63	372	130
		MIN	2540	21	6.6	2.00	24	32	3.1	44	259	100
		AVE	2710	23	6.8	3.67	42	53	3.6	53	313	110
	AUG	MAX	2564	25	6.5	2.63	30	36	4.0	54	320	120
		MIN	2422	22	6.4	0.65	8	9	2.7	37	220	100
		AVE	2512	23	6.5	1.99	23	27	3.2	43	255	110
	SEP	MAX	2446	24	6.8	4.00	47	52	3.0	40	233	110
		MIN	2328	19	6.7	2.55	29	34	[illegible]	26	152	100
		AVE	2387	22	6.8	3.32	38	43	[illegible]	31	182	105

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 11 - River Mile 34.4

YEAR	MO.		FLOW c.f.s	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	3954	24	6.2	0.15	2	3	17.4	291	1712	150
		MIN	2993	18	6.1	0.05	1	1	4.9	105	615	140
		AVE	3443	22	6.2	0.10	1	2	12.9	230	1353	143
	JUL	MAX	3696	23	6.8	0.45	5	8	7.0	118	692	150
		MIN	594	21	6.6	0.05	1	1	4.9	22	132	60
		AVE	2660	22	6.7	0.26	3	6	5.9	74	437	105
	AUG	MAX	3708	23	6.8	0.33	4	7	4.0	76	447	80
		MIN	2663	21	6.4	0.10	1	2	2.2	32	186	65
		AVE	3239	22	6.6	0.24	3	4	3.2	57	336	71
	SEP	MAX	3241	20	6.7	0.28	3	5	4.2	74	432	105
		MIN	2575	19	6.6	0.15	2	2	2.8	39	229	90
		AVE	2902	20	6.6	0.23	3	4	3.5	56	327	95
1959	JUN	MAX	10885	21	6.8	6.50	68	297	9.8	270	1590	110
		MIN	3620	14	6.7	0.20	2	4	2.5	83	489	70
		AVE	6179	19	6.7	3.00	31	131	6.2	178	1050	100
	JUL	MAX	7218	26	6.8	3.95	45	113	3.7	129	757	100
		MIN	2773	18	6.6	0.30	4	4	1.7	37	220	75
		AVE	4403	23	6.7	1.65	19	46	2.5	60	351	89
	AUG	MAX	3950	25	7.1	1.68	20	28	5.5	117	690	110
		MIN	2650	23	6.6	0.20	2	4	1.6	27	157	90
		AVE	3149	24	6.8	0.63	8	10	3.6	64	378	101
	SEP	MAX	5950	23	6.4	1.85	21	25	2.0	64	378	95
		MIN	3224	18	6.3	0.30	3	5	1.2	16	96	80
		AVE	3708	21	6.4	0.85	10	14	1.6	33	194	86
1960	JUN	MAX	5942	21	6.7	4.25	46	136	4.1	108	648	90
		MIN	4387	19	6.6	0.75	8	18	2.1	50	300	55
		AVE	4971	20	6.6	2.29	25	64	2.9	77	465	75
	JUL	MAX	4245	24	6.9	1.68	20	33	3.2	73	436	100
		MIN	3072	22	6.6	0.23	3	3	1.3	26	154	80
		AVE	3793	23	6.7	0.60	7	10	2.5	51	306	93
	AUG	MAX	4186	23	6.8	0.30	3	6	3.4	77	461	100
		MIN	3610	22	6.6	0.10	1	2	1.0	20	117	85
		AVE	3788	23	6.7	0.21	2	4	2.0	51	246	91
	SEP	MAX	8003	23	6.6	4.28	44	90	4.3	117	702	110
		MIN	3158	16	6.5	0.10	1	2	1.5	32	190	80
		AVE	4262	19	6.5	1.55	16	23	3.0	66	397	96
1961	JUN	MAX	7405	21	6.6	8.20	78	293	2.4	86	504	75
		MIN	4305	13	6.4	1.90	21	44	2.0	49	287	60
		AVE	5780	18	6.5	5.12	52	173	2.2	68	400	66
	JUL	MAX	4495	26	6.7	0.80	10	19	3.2	73	431	90
		MIN	4230	22	6.4	0.23	3	5	1.1	27	157	75
		AVE	4345	24	6.5	0.44	6	10	1.9	44	257	84
	AUG	MAX	3955	26	6.5	0.45	5	9	2.9	58	339	100
		MIN	2989	22	6.4	0.20	2	4	1.1	23	135	85
		AVE	3492	24	6.5	0.28	3	5	2.2	41	240	93
	SEP	MAX	4090	24	6.8	3.20	36	71	1.5	33	195	90
		MIN	2810	21	6.6	1.08	13	18	0.8	12	71	90
		AVE	3298	22	6.7	1.92	22	36	1.0	19	111	90

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 11a - River Mile 33.7

YEAR	MO.		FLOW c.f.s	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	3954	24	6.5	0.35	4	7	16.5	276	1623	150
		MIN	2993	19	6.1	0.05	1	1	7.8	167	979	140
		AVE	3443	21	6.4	0.19	2	4	13.4	241	1418	148
	JUL	MAX	3696	24	6.8	0.40	5	6	8.1	100	587	150
		MIN	594	22	6.6	0.15	2	1	2.0	26	153	60
		AVE	2660	24	6.7	0.25	3	3	4.9	59	348	103
	AUG	MAX	3708	23	6.8	0.25	3	5	5.1	102	600	80
		MIN	2663	21	6.4	0.15	2	3	2.1	33	194	60
		AVE	3239	22	6.6	0.20	2	4	3.7	66	386	71
	SEP	MAX	3241	21	6.8	0.32	4	6	3.7	52	308	100
		MIN	2575	19	6.6	0.13	1	2	2.8	44	262	85
		AVE	2902	21	6.6	0.22	3	3	3.2	49	290	94
1959	JUN	MAX	10885	21	6.8	7.60	75	447	8.9	282	1660	110
		MIN	3620	15	6.6	0.18	2	4	2.2	73	430	65
		AVE	6179	19	6.7	3.62	37	168	6.0	172	1039	94
	JUL	MAX	7218	26	6.8	3.50	38	136	4.4	144	848	110
		MIN	2773	19	6.5	0.40	5	6	1.4	32	187	80
		AVE	4403	24	6.7	1.55	18	55	2.7	65	383	91
	AUG	MAX	3950	25	6.9	0.65	8	11	5.5	117	690	110
		MIN	2650	24	6.7	0.15	2	3	1.4	23	137	95
		AVE	3149	25	6.8	0.34	4	6	3.8	66	390	104
	SEP	MAX	5950	23	6.4	1.73	20	56	3.7	80	472	110
		MIN	2514	18	6.2	0.50	5	9	0.9	15	88	80
		AVE	3708	21	6.3	1.31	15	27	2.1	44	257	95
1960	JUN	MAX	5942	22	6.6	5.55	60	178	4.0	105	630	90
		MIN	4387	19	6.5	0.65	7	16	1.9	57	341	60
		AVE	4971	21	6.6	2.77	30	79	2.7	72	432	77
	JUL	MAX	4245	24	6.7	0.75	9	15	3.1	71	426	95
		MIN	3072	22	6.6	0.25	3	4	1.9	38	226	90
		AVE	3793	23	6.7	0.45	5	9	2.4	50	296	93
	AUG	MAX	4186	24	6.7	0.70	8	14	3.0	68	407	100
		MIN	3610	23	6.5	0.25	3	5	1.5	29	176	85
		AVE	3788	23	6.6	0.40	5	8	2.1	44	262	90
	SEP	MAX	8003	24	6.7	8.00	86	346	3.6	156	936	100
		MIN	2975	17	6.5	0.15	2	2	1.3	27	164	85
		AVE	4262	20	6.6	2.90	31	98	2.6	66	398	95
1961	JUN	MAX	7405	22	6.6	8.50	83	304	2.7	80	470	80
		MIN	4305	14	6.4	2.00	23	46	2.0	46	273	65
		AVE	5780	19	6.5	5.35	56	182	2.3	70	411	71
	JUL	MAX	4495	26	6.6	2.40	29	58	2.8	64	377	100
		MIN	4230	22	6.3	0.48	6	11	1.9	46	271	80
		AVE	4345	24	6.4	1.08	13	26	2.3	54	317	92
	AUG	MAX	3955	26	6.5	0.55	7	10	2.7	58	339	100
		MIN	2989	23	6.4	0.30	3	5	1.4	29	172	85
		AVE	3492	24	6.4	0.43	5	8	2.2	41	240	93
	SEP	MAX	4090	24	6.8	2.55	29	56	1.5	25	149	100
		MIN	2810	21	6.5	0.80	9	13	1.1	18	107	90
		AVE	3298	22	6.7	1.58	18	30	1.2	22	127	98

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 11b - River Mile 30.5

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS/DAY	B.O.D. mg/l	B.O.D. 1000 LBS/DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	3954	22	6.2	1.05	11	22	16.6	278	1633	150
		MIN	2993	18	6.1	0.05	1	1	7.0	149	879	140
		AVE	3443	21	6.2	0.38	4	8	13.1	237	1391	145
	JUL	MAX	3696	23	6.8	1.20	14	24	3.4	68	399	130
		MIN	594	22	6.6	0.30	3	5	1.9	33	194	70
		AVE	2660	23	6.7	0.76	9	14	2.7	50	296	93
	AUG	MAX	3708	23	6.6	0.78	9	16	4.6	92	542	80
		MIN	2663	20	6.4	0.45	5	8	1.4	25	145	60
		AVE	3299	22	6.5	0.61	7	11	3.1	55	326	72
	SEP	MAX	3241	20	6.8	0.70	8	12	2.4	42	247	120
		MIN	2575	19	6.6	0.40	4	6	2.0	29	172	100
		AVE	2902	20	6.8	0.56	6	9	2.2	34	199	109
1959	JUN	MAX	10885	21	6.7	8.45	84	497	6.2	265	1556	110
		MIN	3620	15	6.6	0.23	3	4	2.2	73	430	65
		AVE	6179	19	6.7	4.08	42	188	4.7	148	868	94
	JUL	MAX	7218	25	6.8	4.68	49	182	3.5	136	802	100
		MIN	2773	18	6.6	0.85	10	11	1.6	30	176	80
		AVE	4403	23	6.7	2.25	25	64	2.1	55	326	90
	AUG	MAX	3950	25	6.8	1.40	17	23	4.1	87	514	110
		MIN	2908	[illegible]	6.6	0.50	6	7	1.1	18	108	95
		AVE	3149	[illegible]	6.7	0.73	9	12	2.8	48	285	104
	SEP	MAX	5950	23	6.5	2.70	29	71	3.1	71	416	110
		MIN	2514	17	6.3	1.25	13	22	1.1	16	96	80
		AVE	3708	20	6.4	2.18	24	43	1.9	40	235	93
1960	JUN	MAX	5942	22	6.7	5.80	62	186	3.9	103	618	90
		MIN	4387	19	6.5	1.23	14	29	2.0	59	356	65
		AVE	4971	20	6.6	3.57	39	99	3.0	79	471	77
	JUL	MAX	4245	23	6.9	1.58	18	31	2.0	45	272	95
		MIN	3072	22	6.6	0.35	4	6	1.4	28	163	90
		AVE	3793	23	6.6	1.00	12	21	1.7	35	209	93
	AUG	MAX	4186	23	6.7	1.60	18	31	2.8	63	380	110
		MIN	3610	22	6.6	0.70	8	16	1.1	22	129	85
		AVE	3788	23	6.6	0.99	11	20	1.7	35	211	93
	SEP	MAX	8003	23	6.7	8.00	88	346	3.6	156	936	100
		MIN	3158	16	6.5	0.25	3	4	1.2	25	152	85
		AVE	4262	19	6.6	4.57	47	102	2.4	61	364	93
1961	JUN	MAX	7405	21	6.6	8.95	85	328	2.6	88	517	80
		MIN	4305	13	6.5	2.90	32	67	2.2	51	301	65
		AVE	5780	18	6.6	5.93	61	200	2.4	73	431	69
	JUL	MAX	4495	25	6.7	1.60	19	39	2.4	55	323	100
		MIN	4230	22	6.3	1.10	12	26	1.7	41	242	80
		AVE	4345	23	6.4	1.37	16	32	2.0	46	272	90
	AUG	MAX	3955	24	6.6	1.60	18	33	1.9	41	239	100
		MIN	2989	22	6.4	0.75	9	14	1.1	23	135	85
		AVE	3492	23	6.5	1.00	12	19	1.5	29	168	95
	SEP	MAX	4090	24	6.7	3.30	37	73	1.4	27	156	100
		MIN	2810	21	6.5	1.35	16	23	1.0	15	89	90
		AVE	3298	22	6.6	2.32	26	43	1.2	21	124	98

REPORT ON ANDROSCOGGIN RIVER
NEW HAMPSHIRE-MAINE
Sampling Station 12 - River Mile 15.7

YEAR	MO.		FLOW c.f.s.	TEMP °C	pH	D.O. mg/l	% SAT	D.O. 1000 LBS./DAY	B.O.D. mg/l	B.O.D. 1000 LBS./DAY	P.E. 1000 CAP	COLOR
1957	JUN	MAX	4408	22	6.5	8.10	95	193	7.5	139	817	150
		MIN	3296	18	6.4	0.95	10	18	5.0	96	565	140
		AVE	3814	21	6.5	5.50	63	118	5.8	119	697	145
	JUL	MAX	4017	24	7.2	8.13	93	176	5.2	96	566	140
		MIN	716	22	6.5	7.20	83	28	2.8	18	107	70
		AVE	2927	23	6.9	7.52	87	120	4.2	58	343	110
	AUG	MAX	4058	24	6.9	7.60	86	160	2.5	55	322	90
		MIN	2843	20	6.7	7.03	80	108	2.3	38	226	65
		AVE	3469	22	6.8	7.34	83	138	2.4	46	269	73
	SEP	MAX	3420	21	7.0	7.68	81	138	2.9	54	315	130
		MIN	2730	18	6.9	6.70	73	99	2.1	32	186	100
		AVE	3067	20	7.0	7.09	77	118	2.6	42	249	115
1959	JUN	MAX	11750	21	7.0	9.95	100	631	4.4	279	1642	110
		MIN	3970	16	6.7	7.80	87	17	1.9	73	427	65
		AVE	6808	19	6.8	8.86	94	302	3.5	132	777	91
	JUL	MAX	8020	26	7.0	9.20	99	398	3.2	139	815	100
		MIN	3080	19	6.8	7.40	89	123	1.3	34	199	80
		AVE	4914	23	6.9	8.17	94	222	2.1	59	345	88
	AUG	MAX	4190	25	7.1	7.30	87	156	2.6	57	333	110
		MIN	2880	24	6.9	6.90	81	110	1.7	26	156	90
		AVE	3378	24	7.0	7.10	84	129	2.1	39	231	100
	SEP	MAX	6600	22	6.6	9.70	100	290	2.5	89	524	110
		MIN	3355	18	6.5	7.60	82	140	1.2	24	144	80
		AVE	4286	20	6.6	8.40	92	193	2.0	47	277	91
1960	JUN	MAX	6942	23	7.0	9.15	97	343	3.2	108	648	90
		MIN	4892	18	6.7	7.73	89	204	2.0	54	326	60
		AVE	5753	20	6.8	8.56	93	268	2.9	89	535	76
	JUL	MAX	4656	23	7.0	8.48	97	210	2.3	57	342	100
		MIN	3368	23	6.9	7.20	83	131	1.6	29	175	85
		AVE	4185	23	6.9	8.00	91	181	2.0	45	269	91
	AUG	MAX	4532	24	7.0	7.95	91	195	2.9	71	427	100
		MIN	3770	22	6.9	7.75	89	158	1.4	29	175	90
		AVE	4038	23	6.9	7.90	90	172	1.9	42	254	93
	SEP	MAX	8776	24	7.0	9.38	100	441	3.6	48	285	100
		MIN	3203	17	6.7	6.95	80	120	1.6	17	103	80
		AVE	4625	20	6.8	8.40	91	216	2.4	36	213	92
1961	JUN	MAX	8024	22	6.8	10.30	100	422	3.2	131	771	75
		MIN	4434	14	6.6	8.10	92	194	2.4	57	338	65
		AVE	6360	18	6.7	9.18	96	320	2.9	102	601	68
	JUL	MAX	4851	24	6.9	9.18	99	215	2.0	52	305	90
		MIN	4573	22	6.8	8.10	91	202	1.6	42	246	75
		AVE	4705	23	6.9	8.22	95	209	1.8	46	272	84
	AUG	MAX	4161	26	6.9	8.45	97	190	2.4	54	317	90
		MIN	3152	22	6.8	7.05	85	120	1.5	30	178	90
		AVE	3677	24	6.8	7.98	93	159	1.9	37	218	90
	SEP	MAX	4439	24	7.0	8.80	98	211	1.8	43	254	100
		MIN	2997	21	6.8	7.38	86	121	1.4	23	133	90
		AVE	3530	22	6.9	7.84	90	151	1.6	31	184	92

APPENDIX B

FLOW CALCULATIONS

REPORT ON

ANDROSCOGGIN RIVER

New Hampshire-Maine

APPENDIX B

FLOW CALCULATIONS

The flows at each of the fourteen sampling stations along the Androscoggin River are based on drainage areas and relative yields obtained from work done by C. J. Velz and daily flows recorded at U.S.G.S. gages.

The daily flows at Sample Station 1 (Bell's Icehouse, River Mile 138.8) is based on the assumption that flow increases in direct proportion to the increase in drainage area. Thus, the flow at a sampling station between two U.S.G.S. gages will be the recorded flow at the upstream gage plus a computed increment of flow. The increment of flow is computed by multiplying the difference in recorded flows, between the upstream and downstream gages, by the ratio of the increase in drainage area, between the upstream gage and the sampling station, to the total increase in drainage area between the gages. Since the drainage area from the U.S.G.S. gage at Errol to Bell's Icehouse is 77 percent that from the Errol gage to the Gorham gage, the sampling station flow is assumed to have the same flow as at the Errol gage plus 77 percent of the flow increment between the two gages.

The daily flows at Sample Station 2 (Twin State or Gorham, River Mile 130.4) are computed in the same manner as for Sample Station 1 except that the flows from the U.S.G.S. gages at Gorham and Rumford are used. The Twin State (or Gorham sampling station) flow is computed as 20 percent the gage flow increment plus the recorded flow at the Gorham gage.

The daily flows for Sample Station 3 (Gilead, River Mile 119.2), Sample Station 4 (Bethel, River Mile 109.0), and Sample Station 5 (Rumford Point, River Mile 92.7), were computed exactly like the Twin State flows except that 38.1 percent, 46.4 percent, and 95.9 percent, respectively, were used instead of 20 percent.

The daily flows for Sample Station 6 (Rumford, River Mile 87.6) are the recorded flows from the U.S.G.S. gage at Rumford.

The daily flows at Sample Station 7 (Dixfield, River Mile 82.0) are the product of the daily yields at the U.S.G.S. gage at Rumford, in cubic feet per second per square mile, and the drainage area, in square miles, at the sampling station. The flows for Sample Station 8 (Riley, River Mile 65.5), Sample Station 9 (North Turner, River Mile 49.0), and Sample Station 10 (Turner Center, River Mile 42.0) are similarly based on 93 percent, 88 percent, and 84 percent, respectively, of the Rumford yield.

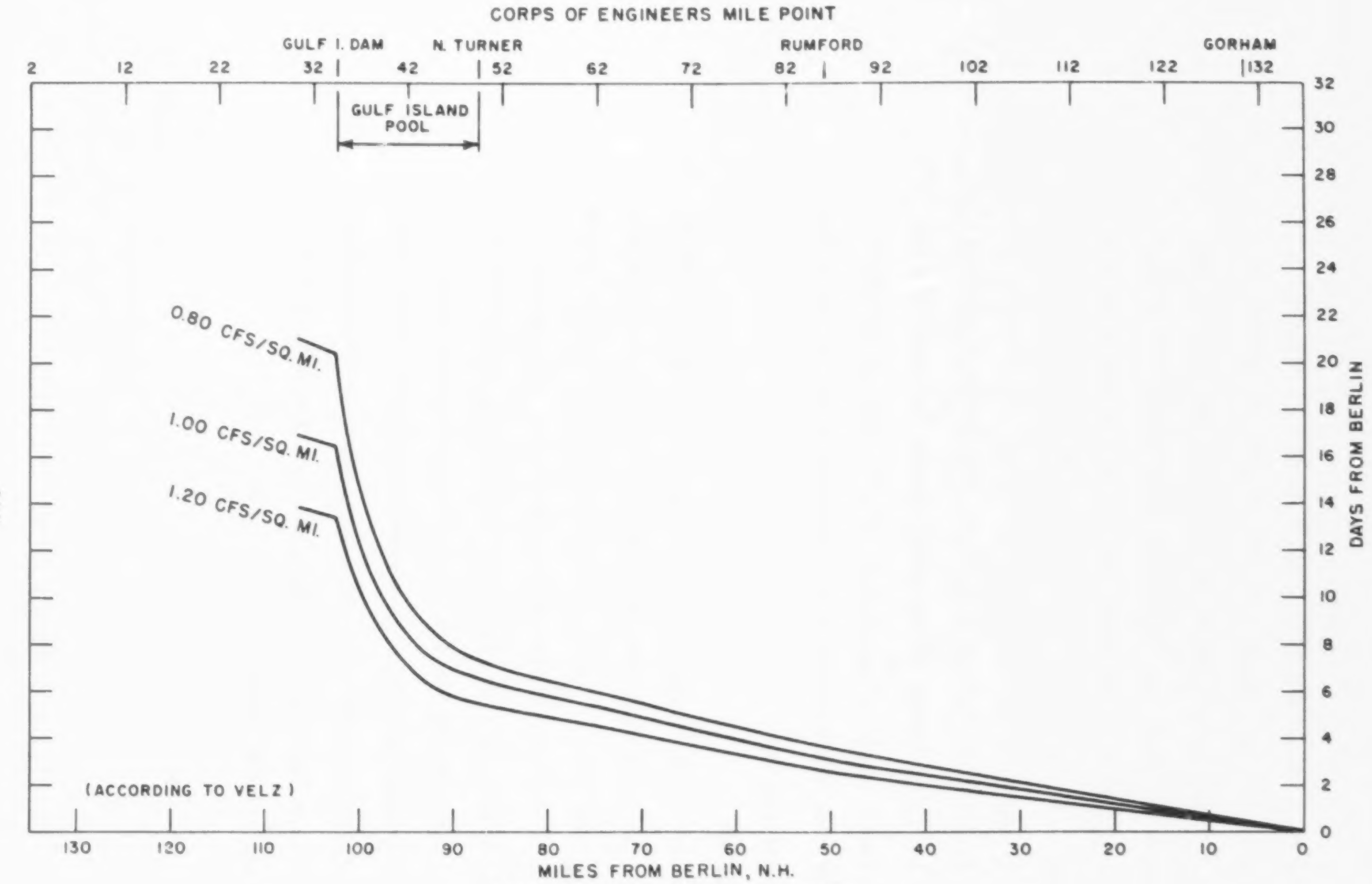
Sample Stations 9 and 10 are both located in Gulf Island Pool.

The daily flows at Sample Station 11 (Gulf Island, River Mile 34.4), Sample Station 11A (Deer Rips, River Mile 33.7), and Sample Station 11B (Lewiston, River Mile 30.5) in absence of further data, are assumed to be equivalent to the difference between the recorded flows at the U.S.G.S. gages on the Androscoggin and Little Androscoggin Rivers near Auburn.

The daily flows at Sample Station 12 (Lisbon Falls, River Mile 15.7) are the products of the daily yields, in cubic feet per second per square mile, at the Auburn U.S.G.S. gage on the Androscoggin River and the drainage area, in square miles, at the Lisbon Falls sampling station.

TIME OF PASSAGE

Time of passage along the Androscoggin River was determined through the use of curves formulated by Prof. C. J. Velz and shown in the following chart - "Time of Passage for Varied Yields" (Chart AP - II - A). The time of passage from Berlin to any sampling station was determined from the curves by computing the distance in miles of the sampling station to Berlin and the mean summer yield, at the sampling station in cfs per square mile. This information was applied to the appropriate yield curve or a reasonable interpolation and the time of passage, in days from Berlin, was read from the vertical scale.



ANDROSCOGGIN RIVER
TIME OF PASSAGE FOR VARIED YIELDS
GULF ISLAND POOL CONSIDERED FULL AT CREST ELEVATION 262
CHART AP-II-A

APPENDIX C

CALCULATED COLIFORM QUANTITIES

REPORT ON

ANDROSCOGGIN RIVER

New Hampshire-Maine

APPENDIX C

CALCULATED COLIFORM QUANTITIES

August 1959

Station	Location Description	MPN/100 ml	Flow Data cfs	Coliform Per Day (In Billions)
1	Bells (Above Berlin)	0+	2023	+
RM138.8	Berlin Sewer	7,600		400,000
2	Twin State Canal from Berlin	63,500	2062	3,200,000
RM130.4	Subtotal from Upstream	63,500		3,200,000
	from Gorham Sewer	1,300		67,000
	Total	64,800		3,267,000
	Shelburne=Berlin Peak	119,000		
	from Gorham	11,100		
	Total	130,100		6,560,000
	N.H.-Me. State Line from Berlin	98,700		
	from Gorham	15,900		
	Total	114,600		5,780,000
3	Gilead Bridge from Berlin	67,000	2093	
RM119.2	Gorham Peak	20,000		
	Total	87,000		4,380,000
4	Bethel from Berlin	29,100	2112	
RM109.0	from Gorham	11,300		
	Subtotal from Upstream	40,000		2,080,000
	from Bethel Sewer	600		32,000
	Total	41,000		2,112,000
	Bethel Peak from Berlin	15,100		
	from Gorham	5,800		
	from Bethel	9,300		
	Total	30,200		1,560,000

APPENDIX C - Continued

Station	Location Description	MPN/100 ml	Flow Data cfs	Coliform Per Day (In Billions)
5 RM92.7	Rumford Point from Berlin	12,200	2223	
	from Gorham	4,600		
	from Bethel	7,400		
	Total	24,200		1,310,000
6 RM87.6	Rumford from Berlin	6,400	2232	
	from Gorham	2,400		
	from Berlin	3,800		
	Subtotal from Upstream	12,600		685,000
	from Rumford Sewer[1]	6,000		326,000
	Total	18,600		1,011,000
	Rumford Peak from Berlin	3,400		
	from Gorham	1,200		
	from Bethel	2,000		
	from Rumford	90,500		
	Total	97,100		5,230,000
8 RM65.5	Riley from Berlin	1,200	2635	
	from Gorham	400		
	from Bethel	600		
	from Rumford	28,500		
	Total	30,700		1,970,000
	Livermore from Berlin	1,000		
	from Gorham	300		
	from Bethel	500		
	from Rumford	22,600		
	Subtotal from Upstream	24,400		1,580,000
	from Livermore Sewer	1,100		69,000
	Total	25,500		1,649,000
	Livermore Peak from Berlin	600		
	from Gorham	200		
	from Bethel	300		
	from Rumford	11,700		
	from Livermore	16,100		
	Total	28,900		1,860,000
9 RM49.0	No. Turner Bridge from Berlin	100	2677	
	from Rumford	1,200		
	from Livermore	3,300		
	Total	4,600		302,000

(1) Rumford figures include Mexico & Dixfield

APPENDIX C - Continued

Station	Location Description	MPN/100 ml	Flow Data cfs	Coliform Per Day (In Billions)
10	Turner Center Bridge from Rumford	300	2720	
RM42.0	from Livermore	800		
	Total	1,100		72,000
11	Gulf Island from Rumford	100	3149	
RM34.4	from Livermore	200		
	Total	300		17,000
11a	Deer Rips from Rumford	100	3149	
RM33.7	from Livermore	200		
	Total	300		16,000
11b	Auburn-Lewiston from Upstream	0+	3149	
RM30.5	from Auburn-Lewiston	15,700		
	from Little Androscoggin	31,100		
	Total	46,800		3,630,000
	Auburn Peak from Auburn-Lewiston	237,000		
	from Little Androscoggin	15,800		
	Total	252,800		19,400,000
	Intermediate Point from Auburn	181,000		
	from Little Androscoggin	12,400		
	Total	193,400		15,500,000
12	Lisbon Falls from Auburn-Lewiston	91,000	3378	
RM15.7	from Little Androscoggin	6,200		
	Subtotal from Upstream	97,200		8,000,000
	from Lisbon Falls Sewer	700		60,000
	Total	97,900		8,060,000
	Lisbon Falls Peak from Aub-Lew.	46,000		
	from Little Androscoggin	3,200		
	from Lisbon Falls	10,600		
	Total	59,800		4,970,000
	Brunswick from Auburn-Lewiston	37,000		
	from Little Androscoggin	2,600		
	from Lisbon Falls	8,400		
	Subtotal from Upstream	48,000		4,000,000
	from Brunswick Sewer	4,600		386,000
	Total	52,600		4,386,000

APPENDIX C - Continued

Station	Location Description	MPN/100 ml	Flow Data cfs	Coliform Per Day (In Billions)
	Brunswick Peak from Aub-Lew.	19,100		
	from Little Androscoggin	1,300		
	from Lisbon Falls	4,300		
	from Brunswick	68,400		
	Total	93,100		7,870,000

MR. STEIN: I would like to point out at the end of this report that since the representatives of the States and the interstate agency have not had a change to comment on this, that this is a report of our investigators, subject to comment by the States and the interstate agency involved.

We would like to have the maximum number of views brought to bear on this problem before we can come to a conclusion. However, I should indicate that the description in one of these reports is largely a description of physical facts and I think in our studies Mr. Kittrell and his group have a reputation for coming up with what they regard as objective evaluations and measurements of the facts. I think when we are dealing with a description of physical facts, we can arrive at agreements among all parties concerned where reasonable men really cannot differ, because there are standards of measurement, and we are measuring something that you can see, feel, and look at, and that you can smell.

In this context I want to give you both sides of this and we should remember that we have not heard from the States involved or the interstate agency as to their interpretation for evaluation of this report.

MR. ROGERS: I think I might ask Mr. Sidio one question.

Mr. Sidio, here is a chart showing the desirable level for dissolved oxygen for fish life. I believe Station 2 is how far below Berlin, roughly?

MR. SIDIO: A couple of miles.

MR. ROGERS: A couple of miles. Showing, I think, that the dissolved oxygen level there in both the two periods being compared, was up at this Station 2, but that beginning at Station 3 and then on down through, and even down to just above Lisbon Falls, the dissolved oxygen available for fish propagation is below that normally required.

MR. SIDIO: That is correct.

MR. ROGERS: Is that true?

MR. SIDIO: Yes, sir.

MR. ROGERS: That is the only point I wanted to bring out.

MR. STEIN: I think we can probably move more expeditiously if we operated in the following manner: We could have Mr. Rogers call on the Federal representatives, who, I understand, for the most part have very short statements. Then we will have a fifteen-minute recess and anyone in the audience who wishes to make a statement should then get in touch with Mr. Rogers, and Mr. Rogers will call on them after the recess.

Mr. Rogers, will you then call the Federal representatives?

MR. ROGERS: Thank you.

We have invited representatives from the other Federal Departments and I think we have several such representatives here. If you will, please, if you have a statement to make I would like to ask you to do that at the present time.

First of all, we have a letter here from the United States Department of the Interior, and we have present Mr. Mark Abelson, who is Chairman of the Northeast Field Committee of the Department of the Interior here. I would like to call on him. I believe he has someone to introduce and I would like to have him read this letter into the record.

STATEMENT OF MARK ABELSON, CHAIRMAN, NORTHEAST FIELD COMMITTEE, NORTHEAST REGION, REGION 5, UNITED STATES DEPARTMENT OF THE INTERIOR

MR. ABELSON: I am very happy to be here, but I am here strictly as an observer. In addition to myself, there are members of two of the Bureaus of the Department here who may answer any questions that might come up.

There is Morton Hayes of the Geological Survey and Edwin H. Robinson of the Bureau of Sports Fisheries and Wildlife. In addition, Mr. Robinson has a short statement which he would like to read, and if it is all right with you, he can read it now.

MR. ROGERS: Yes. Will you come up front, Mr. Robinson?

STATEMENT OF EDWIN H. ROBINSON, STAFF MEMBER, BUREAU OF SPORT FISHERIES, FISH AND WILDLIFE SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR

MR. ROBINSON: This letter is dated September 20, 1962, from the United States Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, 59 Temple Place, Boston, Massachusetts. It is addressed to Mr. Herbert Rogers, United States Public Health Service, Department of Health, Education & Welfare, 120 Boylston Street, Boston, Massachusetts.

"Dear Mr. Rogers:

"This letter is in response to your telephone conversation of September 14 with Mr. Walker of this office concerning the Androscoggin River, Maine and New Hampshire.

"The Androscoggin River formerly supported runs of anadromous fish such as Atlantic salmon, American shad, alewife, and American smelt. These species have been eliminated from their traditional locations on the river for a long time due to pollution and the construction of dams without fish passage devices. The Androscoggin River is grossly polluted at Berlin, New Hampshire, and this condition continues throughout the remainder of the river's course to Merrymeeting Bay, a distance of approximately 120 miles. This pollution is largely responsible for the depletion of fishery resources other than anadromous species.

"There is evidence that in recent history no anadromous fish negotiated the natural falls at Rumford, Maine. However, future fishing studies on the Androscoggin River may determine that it is appropriate and feasible to install anadromous fish passage facilities at Rumford, Maine. The pollution problem has been the main deterrent to study of the fishery resources of the river; and because the water quality of the Androscoggin River remains at intolerable levels, there has been no basis for advancing the development of fish passage facilities. It is anticipated that future studies will be conducted on the relationship of anadromous fishery resources to the Androscoggin River, particularly as related to the State of Maine.

"The U. S. Fish and Wildlife Service and the Northeastern coastal states have, for many years, carried out programs of research and management looking toward the restoration of runs of anadromous fish. The Federal and State conservation agencies, in connection with the report of the New England-New York Inter-Agency Committee, recommended that when pollution and fish barriers have been corrected in the Androscoggin River, opening the way for anadromous species such as the Atlantic salmon, fish passage devices would be required at all new water development projects.

"We are looking forward to the day when runs of Atlantic salmon, American shad, alewives, and American smelt can be restored in clean waters of the Androscoggin River.

"Sincerely yours,

/s/ Ennio Abbiati

Ennio Abbiati, Acting Chief
Division of Technical Services."

MR. STEIN: Thank you, Mr. Robinson.

May I ask a question before you leave?

As I understand it, from a technical point of view, do you believe in the absence of pollution it would be feasible to construct fish passage devices so that the anadromous fish can go up the Androscoggin?

MR. ROBINSON: Yes. Certainly that is a good possibility. It depends, however, on investigations to determine the potential spawning in the upper reaches of the river.

MR. STEIN: Right.

MR. ROGERS: It would also include the natural falls at Rumford.

Did you have anyone else who wanted to make any statement, Mr. Abelson?

MR. ABELSON: No, sir.

MR. ROGERS: We have Mr. W. A. Slagle, Jr., who is representing the Army Corps of Engineers, New England Division.

Mr. Slagle, did you want to make any statement?

STATEMENT OF WILLIAM A. SLAGLE, JR., REPRESENTING THE NEW ENGLAND DIVISION UNITED STATES ARMY CORPS OF ENGINEERS, WALTHAM, MASSACHUSETTS

MR. SLAGLE: The name is William A. Slagle, Jr., and I represent the New England Division of the United States Army Corps of Engineers, located in Waltham, Massachusetts. I would like to read a very short passage, a section of Public Law 87-88, the Federal Water Pollution Control Act, which establishes the policy on inclusion of storage for regulation of stream flow in Federal projects for the purpose of water quality control.

I quote:

> "Section 2(b)(1). In the survey or planning of any reservoir by the Corps of Engineers, Bureau of Reclamation, or other Federal agency, consideration shall be given to inclusion of storage for regulation of stream flow for the purpose of water quality control, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source."

Our office in Waltham is reviewing previous reports on the Androscoggin River Basin. The report of the New England-New York Inter-agency Committee completed back in 1954, considered seven projects on the Androscoggin. We are reviewing those projects to determine at this time the economical feasibility of Federal participation in such projects. We shall coordinate our efforts with the Public Health Service in determining the ultimate use, and the best use of the water resources of the Androscoggin. We shall consider all purposes for which water can possibly be used for the welfare of the basin and for the welfare and economy of the entire nation.

The project will consider the purposes of flood control, hydroelectric power development, low flow, pollution abatement, recreation, fish and wildlife. We will consider all uses, as I stated, that can best serve mankind. Our report is scheduled for completion in about a year and a half and we look with much interest toward the results of the studies being made by the Department of Health, Education, and Welfare as far as the inclusion of storage for low flow regulation.

MR. STEIN: Thank you, sir.

Do you have any questions, Mr. Rogers?

MR. ROGERS: Yes. I believe a number of these quotations Mr. Sidio has in his report came from a hearing that the Corps of Engineers held on the Androscoggin. Is this not true?

MR. SLAGLE: This is true.

MR. ROGERS: I believe the Public Health Service also received a request from your office dated September 29, 1961. This request actually came to our office from you requesting we do some low flow studies on the Androscoggin. Is that true?

MR. SLAGLE: This is true.

MR. ROGERS: Do you mind if I read into the record our reply to your request?

MR. SLAGLE: I would be glad to have you do so.

MR. ROGERS: Let me just read into the record our reply to the Corps of Engineers' request, dated September 29, 1961:

"DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
REGION II
PUBLIC HEALTH SERVICE
42 Broadway
New York 4, N.Y.

January 26, 1962

In reply refer to:
24:WPC

"Mr. John Wm. Leslie
Chief, Engineering Division
U. S. Army Engineer Division, New England
Corps of Engineers
424 Trapelo Road
Waltham 54, Massachusetts

Dear Mr. Leslie:

Reference is made to your letter of September 29, 1961 requesting our consideration of the need for and the value of storage for regulation of stream flow for the purpose of water quality control in the Androscoggin River. The additional storage for flow regulation would be provided by your proposed flood "control reservoirs in the Androscoggin Basin at Pontook and on the Ellis and Swift Rivers. The amount of additional water that can be economically developed at each of the proposed sites has not been determined.

"The dam at Pontook on the Androscoggin River would control a drainage area of 169 square miles below the control works at Errol, New Hampshire, while each of the dams on the Ellis and Swift River would control drainage areas of about 164 and 111 square miles respectively. The runoff from 1045 square miles of the Androscoggin is controlled at Errol, New Hampshire by the Union Water Power Company to guarantee a flow of 1550 cfs at Berlin, New Hampshire.

"The flow downstream from Berlin is further regulated by several Hydroelectric installations. In addition, a court appointed River Master, Dr. A. W. Lawrence sets weekly production quotas during the summer months for paper mills at Berlin, New Hampshire; Rumford, Maine; and Jay, Maine. These mills discharge untreated wastes to the Androscoggin River. The quotas are based on projected river flows by the Union Water Power Company and such river flows determine the amount of industrial pollution the mills can discharge to the river without creating nuisance conditions.

"Section 2(b)(1) of Public Law 87-88 states that 'In the survey or planning of any reservoir by the Corps of Engineers, Bureau of Reclamation, or other Federal agency, consideration shall be given to inclusion of storage for regulation of stream flow for the purpose of water quality control, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source.' It should be noted that it is the primary responsibility of the State concerned to require adequate treatment.

"It appears at this time, that if present practices of discharging untreated wastes are to continue, the inclusion of storage for water quality control would be contrary to the provisions of the present Federal Water Pollution Control Act. In addition, in view of the quota system it is unlikely that additional flows would bring improved quality.

"If adequate treatment were provided at the mills, it is possible that the inclusion of storage for water quality control might be beneficial. If this occurs, we would recommend a re-evaluation of this matter at that time.

"It appears from our investigation that water supply storage might be considered for the proposed reservoir on the Swift River. The towns of Mexico and Rumford have been conducting investigations for additional public water supplies. We would be pleased to investigate this matter further under Title III of Public Law 500 and would also be pleased to discuss this matter further with you.

"Sincerely yours,

/s/ Lester M. Klashman

Regional Program Director
Water Supply and Pollution Control."

Copies of this letter were furnished to our own Chief, Technical Services Branch, Keith Krause; our Chief, Water Resources Studies, Mr. Vanderhoof, in Cincinnati; Dr. Henry C. Huntley, of Region I; Mr. R. W. Macdonald, Chief Engineer of Maine; Mr. William A. Healy, the Technical Secretary of the Water Pollution Commission of New Hampshire; and Mr. Lawrence J. Bresnahan, Regional Director of the HEW in Boston.

I believe this was our reply to your request.

MR. SLAGLE: I would like to make one statement, if I may, Mr. Rogers.

MR. ROGERS: Yes.

MR. SLAGLE: In the letter you just read you referred at least twice, as I noted it, to proposed dams. This is a term which the Corps of Engineers steers very shy of, this early in the program. We are studying dams and we are studying reservoir projects. We are not yet proposing anything. The proposal will be in the form of a report to the Chief of Engineers in Washington, and thence will be submitted to the Congress.

So we would respectfully request that you not call them proposed dams until we actually propose their construction, or someone does.

MR. ROGERS: Thank you.

MR. STEIN: Thank you, Mr. Slagle. I think that point is well taken.

For the benefit of any people in the audience who may or may not have followed what seemingly was a technical discussion, maybe I can just take one moment to clarify this. More and more in the United States we have less and less unregulated streams. You will recall that the Mississippi and Missouri Rivers used to flood every few years and then go back into their channels. This is no longer the case. Almost all the streams, or, rather, not all of the streams, but the major streams of the United States, at any rate, are being regulated. These big reservoirs and impoundments are put up at various strategic places in the water basin and releases are made available. This is so that the people downstream can have the maximum number of benefits from the use of those waters in the discharge of the water from these streams.

This water is discharged for a variety of purposes. The purposes may be flood control, irrigation, navigation, power, and so forth. Discharges are also made available for water quality. The best way to describe that, again I think, is to use an analogy. If we deal with an electric utility your system must be so constructed that not only does it work during the summertime, but at four o'clock on a winter's afternoon, while the men are in their offices, and the secretaries, and the lights are switched on there, and while the women are home preparing dinner, and they turn all of the lights on there, there is enough power to handle all of these demands. In other words, a utility must have enough reserve power to handle the peaks at the critical periods.

In water pollution control these peak periods generally occur during low flow, in warm weather. Here it occurs generally during the months of July and August. Given the best feasible treatment for ordinary events, there may be a situation where we have a dry period or periods during low flow where the only way to tide the fish and wildlife and the other uses of the river over this bad period is to release waters from these reservoirs. This is what we are talking about in providing water for low flow augmentation.

However, I may say this: The law on this is very specific. We cannot provide this water as a substitute for adequate treatment or other methods of controlling wastes. In other words, we are not going to give you water to handle your pollution unless the wastes are adequately treated at the source.

There is one other point. If the benefits are widespread these costs are non-reimbursable and the Federal Government must pay the costs.

Thank you, Mr. Rogers.

MR. ROGERS: Thank you.

I believe you would like to enter both of these letters in the record.

MR. STEIN: Yes. If we could.

MR. ROGERS: That is, the Department of the Interior's letter and a copy of our reply to the Corps of Engineers' request.

(The letters referred to are as follows:)

ADDRESS ONLY THE
REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
59 TEMPLE PLACE
BOSTON, MASSACHUSETTS

NORTHEAST REGION
(REGION 5)
MAINE
NEW HAMPSHIRE
NEW YORK
VERMONT
PENNSYLVANIA
MASSACHUSETTS
NEW JERSEY
RHODE ISLAND
DELAWARE
CONNECTICUT
WEST VIRGINIA

DHEW [illegible]
SEP 21 9 01 AM '62
BOSTON, MASS.

September 20, 1962

Mr. Herbert Rogers
U. S. Public Health Service
Department of Health, Education & Welfare
120 Boylston Street
Boston, Massachusetts

REGION I
To
PHS

Dear Mr. Rogers:

This letter is in response to your telephone conversation of September 14 with Mr. Walker of this office concerning the Androscoggin River, Maine and New Hampshire.

The Androscoggin River formerly supported runs of anadromous fish such as Atlantic salmon, American shad, alewife, and American smelt. These species have been eliminated from their traditional locations on the river for a long time due to pollution and the construction of dams without fish passage devices. The Androscoggin River is grossly polluted at Berlin, New Hampshire, and this condition continues throughout the remainder of the river's course to Merrymeeting Bay, a distance of approximately 120 miles. This pollution is largely responsible for the depletion of fishery resources other than anadromous species.

There is evidence that in recent history no anadromous fish negotiated the natural falls at Rumford, Maine. However, future fishing studies on the Androscoggin River may determine that it is appropriate and feasible to install anadromous fish passage facilities at Rumford, Maine. The pollution problem has been the main deterrent to study of the fishery resources of the river; and because the water quality of the Androscoggin River remains at intolerable levels, there has been no basis for advancing the development of fish passage facilities. It is anticipated that future studies will be conducted on the relationship of anadromous fishery resources to the Androscoggin River, particularly as related to the State of Maine.

The U. S. Fish and Wildlife Service and the Northeastern coastal states have for many years, carried out programs of research and management looking toward the restoration of runs of anadromous fish. The Federal and State conservation agencies, in connection with the report of the New England-New York

Inter-Agency Committee, recommended that when pollution and fish barriers have been corrected in the Androscoggin River, opening the way for anadromous species such as the Atlantic salmon, fish passage devices would be required at all new water development projects.

We are looking forward to the day when runs of Atlantic salmon, American shad, alewives, and American smelt can be restored in clean waters of the Androscoggin River.

Sincerely yours,

Ennio A Abbiati

Ennio Abbiati, Acting Chief
Division of Technical Services

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
REGION II
42 BROADWAY
NEW YORK 4, N. Y.

BLIC HEALTH SERVICE

January 26, 1962

In reply refer to:
24:WPC

Mr. John Wm. Leslie
Chief, Engineering Division
U.S. Army Engineer Division, New England
Corps of Engineers
424 Trapelo Road
Waltham 54, Massachusetts

Dear Mr. Leslie:

Reference is made to your letter of September 29, 1961 requesting our consideration of the need for and the value of storage for regulation of stream flow for the purpose of water quality control in the Androscoggin River. The additional storage for flow regulation would be provided by your proposed flood control reservoirs in the Androscoggin Basin at Pontook and on the Ellis and Swift Rivers. The amount of additional water that can be economically developed at each of the proposed sites has not been determined.

The dam at Pontook on the Androscoggin River would control a drainage area of 169 square miles below the control works at Errol, New Hampshire, while each of the dams on the Ellis and Swift River would control drainage areas of about 164 and 111 square miles respectively. The runoff from 1045 square miles of the Androscoggin is controlled at Errol, New Hampshire by the Union Water Power Company to guarantee a flow of 1550 cfs at Berlin, New Hampshire.

The flow downstream from Berlin is further regulated by several Hydroelectric installations. In addition a court appointed River Master, Dr. A. W. Lawrence sets weekly production quotas during the summer months for paper mills at Berlin, New Hampshire; Rumford, Maine; and Jay, Maine. These mills discharge untreated wastes to the Androscoggin River. The quotas are based on projected river flows by the Union Water Power Company and such river flows determine the amount of industrial pollution the mills can discharge to the river without creating nuisance conditions.

C O P Y

Section 2(b)(1) of Public Law 87-88 states that "In the survey or planning of any reservoir by the Corps of Engineers, Bureau of Reclamation, or other Federal agency, consideration shall be given to inclusion of storage for regulation of stream flow for the purpose of water quality control, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source." It should be noted that it is the primary responsibility of the States concerned to require adequate treatment.

It appears at this time, that if present practices of discharging untreated wastes are to continue, the inclusion of storage for water quality control would be contrary to the provisions of the present Federal Water Pollution Control Act. In addition, in view of the quota system it is unlikely that additional flows would bring improved quality.

If adequate treatment were provided at the mills, it is possible that the inclusion of storage for water quality control might be beneficial. If this occurs, we would recommend a re-evaluation of this matter at that time.

It appears from our investigation that water supply storage might be considered for the proposed reservoir on the Swift River. The towns of Mexico and Rumford have been conducting investigations for additional public water supplies. We would be pleased to investigate this matter further under Title III of Public Law 500 and would also be pleased to discuss this matter further with you.

Sincerely yours,

Lester M. Klashman
Regional Program Director
Water Supply and Pollution Control

CC: Keith Krause, Chief, Tech. Services Branch (2 copies)
Mr. Vanderhoof, Chief, Water Resources Studies (2 copies)
Dr. Henry C. Huntley, Region I (1 copy)
Mr. R.W. MacDonald, Chief Engineer, W.P.C. (1 copy)
Wm. A. Healy, Technical Secretary, WPC (1 copy)
Mr. Lawrence J. Bresnahan, Regional Director (1 copy)

MR. ROGERS: We have next Captain James B. Grady, who is from the United States Navy, Portsmouth Naval Base, representing Rear Admiral J. H. Wellings, Commandant of the First Naval District.

Did you want to make any statements?

STATEMENT OF KENNETH C. ABPLANALP, CAPTAIN,
PUBLIC WORKS OFFICER, NAVAL AIR STATION,
BRUNSWICK, MAINE

CAPTAIN ABPLANALP: Captain Grady has left. I wonder if I might substitute?

MR. ROGERS: Would you come up, please, and introduce yourself to the reporter?

CAPTAIN ABPLANALP: I am Captain Kenneth C. Abplanalp, Public Works Officer in the Naval Air Station at Brunswick.

We are here as observers and not conferees. Of course, the Navy is interested in anything that affects the health and welfare and recreational possibilities for the men in the Service. We also like to be good neighbors and I would simply like to point out that your surveys and your report seem to end at Brunswick. We are just a little downstream from Brunswick, where the Navy has installed a sewage treatment plant to take care of this sewage from the Naval Air Station. I think it is designed to handle about 4,000 population. At the present time it consists of sedimentation dams, and sludge digesting dams and sludge beds. We chlorinate the effluent. This is only, essentially, primary treatment.

The plant has the capability of being augmented with secondary treatment when the quality of the stream appears to require it.

Thank you very much.

MR. STEIN: Thank you, Captain.

MR. ROGERS: Thank you, sir.

I believe this is the only Naval installation you have in this basin.

CAPTAIN ABPLANALP: Yes, it is.

MR. ROGERS: Fine. Thank you.

Captain George M. Playdon of the United States Coast Guard, representing the First United States Coast Guard District.

Would you like to make a statement, sir?

STATEMENT OF CAPTAIN GEORGE M. PLAYDON,
UNITED STATES COAST GUARD, REPRESENTING
THE FIRST UNITED STATE COAST GUARD DISTRICT

CAPTAIN PLAYDON: No, I have no statement to make. I am here as a representative of the Commander, First Coast Guard District, at Boston, as an observer without portfolio. I am interested and I shall report back. The Coast Guard is certainly interested in pollution of all sorts.

MR. ROGERS: Do you have any Coast Guard stations here?

CAPTAIN PLAYDON: No, I am the Captain of the Port of Boston and I am an observer for the Admiral.

MR. ROGERS: Thank you very much, Captain Playdon.

I wonder if we have someone here from the Soil Conservation Service?

Did Mr. Floyd Campbell come in?

STATEMENT OF LEWIS E. PARLIN, SOIL CONSERVATION
SERVICE, DEPARTMENT OF AGRICULTURE, ORONO, MAINE

MR. PARLIN: My name is Parlin.

MR. ROGERS: Are you representing the Soil Conservation Service of the Department of Agriculture?

MR. PARLIN: Yes, sir.

For the record, my name is Lewis Parlin of the Soil Conservation Service, with headquarters at Orono, Maine. I have no formal statement to make. I am here as an observer, as are the rest.

I would like to say on behalf of the Soil Conservation Service that we are always cognizant of pollution and pollution control. All of our activities are through Public Law 46, which operates through the Soil Conservation Service Districts in the upland programs, and through Public Law 566, the Watershed Protection and Flood Prevention Act, better known as the Small Watersheds Act. Wherever we run into problems that represent one of pollution, or having any relation to the same, we are very careful and request the services of any health and welfare interests.

Thank you.

MR. ROGERS: Let me ask about the Public Law 566. We have the same responsibilities with the Department of Agriculture that we have with other Federal agencies.

MR. PARLIN: I believe that is right.

MR. ROGERS: That is, there should be studies made as to water supply storage in these projects, and also the inclusion of storage for water quality control.

MR. PARLIN: I believe that is right.

MR. ROGERS: Do you have any information of what actually the uses of the Andorscoggin are for irrigation purposes or stock watering?

MR. PARLIN: Not that I can make a statement on.

MR. ROGERS: I would like to say for the record that we did interview several people below the Lewiston area that are using this water for irrigation purposes. We found one particular instance in which the streams were being clogged by chicken wastes from the Lewiston area, in which a man could not use his irrigation system. I wonder if there is anyone else here from the Department of Agriculture who might have some more information on this?

(No response.)

MR. ROGERS: Are there any other Federal agencies represented?

(No response.)

MR. ROGERS: I believe this concludes the presentation by the Federal agencies, then.

MR. STEIN: May we stand in recess for fifteen minutes? In the interim, will all those other than Federal agencies who wish to make a statement see Mr. Rogers, and they will be called on.

(Whereupon, at 11:35 a.m., the hearing was recessed until 11:50 a.m.)

MR. STEIN: May we reconvene?

I have a telegram here expressing full sympathy with the purpose of the Conference from Phillip Barsky, Field Representative of Wildlife Management, The Wildlife Institute.

I have been asked to make a few points for the record for clarification during the recess. One is, I think that the record should note that the representatives of the States and the interstate agencies left after they made their statements. I am not sure if that is the case with the man from New Hampshire. Do you know?

MR. KLASHMAN: Yes. He left.

MR. STEIN: And we would also indicate the basis on which the Conference runs, and how the invitations are handled.

Under our law, this is a conference between the States and interstate agencies, and the Federal Government. The way the law is written, we generally invite the States and interstate agencies. The law says that the agencies called to attend such Conference may bring such persons as they desire to the Conference. This means that the States and interstate agencies have been asked, when they get their invitations, to invite others whom they wish to come to the Conference. This is, under our law, generally the responsibility of the State and interstate agencies.

With that I would like to call on Mr. Rogers. Do you have any others who wish to make statements, Mr. Rogers?

MR. ROGERS: Let me make one other point for the record.

There is one United States Coast Guard station located on the Kennebec River known as the Kennebec River Port Station, at the mouth of the Kennebec. So this indicates that they have an interest down in Merrymeeting Bay area.

We have a request from the League of Women Voters of Maine, who will be represented by Mrs. Charles D. McEvoy, Jr., who is a member of the board of directors. She would like to make a statement.

STATEMENT OF MRS. CHARLES D. McEVOY, JR., MEMBER, BOARD OF DIRECTORS, LEAGUE OF WOMEN VOTERS OF MAINE

MRS. MC EVOY: I am Mrs. Charles D. McEvoy, Jr., a member of the Board of Directors of the League of Women Voters of Maine. I wish to express the strong interest of 700 members of 11 local Leagues in Maine in pollution abatement.

Six years ago the League of Women Voters of the United States undertook a study of water resources. This study included an examination of the Federal program for water development and the relationships among the Federal, State and local agencies. As an outgrowth of this study, the League has worked for increased appropriation of Federal matching funds to encourage municipalities in the construction of sewage treatment plants and for passage of a stronger Federal pollution abatement bill. Recognizing pollution as Maine's most pressing water problem, the Maine League, for the past three years, has been supporting measures to strengthen the Maine Water Improvement Commission.

Today's Conference is of great interest to the League. We welcome this opportunity to observe the implementation of the Federal Water Control Act. We are anxious to assess the effectiveness of this Conference, the first in New England to be called by the Secretary of Health, Education, and Welfare for enforcement of pollution abatement.

Just how do things stand on the Androscoggin? What preliminary steps have been taken by the New Hampshire and Maine commissions toward planning for cleaning up the river? What special problems are offered by the industries and municipalities in this river basin? What steps have already been taken by towns, cities and industries to reduce pollution? Is there any way in which progress can be speeded? Will this Conference point out any measures which would strengthen the Maine Water Improvement Commission?

We are hopeful that public meetings and conferences such as this one today will be effective in promoting cooperation and understanding between Federal and State agencies. We also hope that attendance at these meetings and widespread reports of the proceedings will do much to increase public awareness of the tremendous importance of pollution control to the economy of this State. An abundance of water is one of Maine's most valuable resources. In order to be useful to industry, to municipalities, and for recreation it must be clean and accessible. We are very much interested in measures which would accelerate abatement of pollution, particularly in the populous sections of the State, where pollution is most serious.

Thank you.

MR. STEIN: Thank you very much for a very excellent statement.

MR. ROGERS: Thank you.

Mr. Chairman, these are all the people who have indicated that they would like to make statements.

MR. STEIN: At this point I think we may see where we have come in this Conference.

About four months ago, I think it was, I attended the White House Conference on Conservation. At that time President Kennedy told a story that I think might be appropriate now. He referred to that classic story of the French nobleman who asked his gardener to plant a certain type of shrub in his back garden, which was a very rare shrub. The nobleman was about sixty years old so the gardener asked, "Why do you want to plant that shrub? You know that this particular type of shrub takes one hundred years before it produces a bloom." And the nobleman said, "Well, then, by all means we must plant it this afternoon."

I think there is a time to begin. In this Conference we have had a report from the Federal representatives and others in dealing with the pollution situation. Again I want to point out that the States and the interstate agencies did not comment on this. I do not think we have any conclusions, but the report is an evaluation which was made only in the best way that the Federal Government knew how, and we hope that this will be considered by the States and interstate agencies as these agencies said they would consider the report.

I should point out that this Conference in no way is an adversary proceeding, where one group should be vying against another group. What we are trying to obtain is a clear statement of conditions of water quality in the Androscoggin River, and what causes those conditions. I think in most cases throughout the country where we have had proceedings like this involving more than three hundred cities -- large cities and small cities and about a like number of industries -- in almost all of those places where the facts were agreed on, and there was absolutely no reason why the facts should not be agreed on, the solution seemed to be forthcoming. Once we analyze a pollution problem and everyone agrees, then again I think that the American body politic is such that a solution seems to flow. At least again the report here from the Federal people seems to indicate the following -- and we would recommend any State or interstate agency comment on that:

1. We have talked about the occurrence of pollution in interstate and navigable waters subject to abatement under the Act. There have to be two conditions which obtain. One of these is that the stream must be an interstate water, that is, it must flow across or form a part of the boundaries of two or more States. I think it is pretty obvious, or at least it has been stated by the Federal people that that is the case and that the Androscoggin River does qualify.

The next point is that pollution originating in one State must endanger the health or welfare of persons in another State. The conclusions of the Federal report were that, first, the pollution interfered with the river so as to preclude its development as a public water supply; interfered with general recreation and its development for industrial supplies requiring higher quality than that available; with the propagation of fish and the passage of anadromous fish; with the harvesting of shellfish from the Merrymeeting Bay area; and with the livestock watering situation.

We would like to have the comments of others on this.

I might again point out what the situation here is. I think the situation as outlined by our people is pretty evident to most people. Again I might say we would like to hear from the States before we come to any conclusion, but it is pretty obvious from the report that Mr. Sidio gave that pollution in New Hampshire is in the amounts he said it was here, or indicated it was, and that it got into Maine, and that there was endangering of the health and welfare of people in Maine from sources in New Hampshire.

The problem we have here is, if the Federal Government does not have jurisdiction on its own initiative, to determine the question of what effect pollution in Maine can have on New Hampshire. The indication in this report is that there may be a problem dealing with the passage of anadromous fish if the oxygen level is below that required for a vast area of the stream. There may be a problem there of fish getting up the river.

Again I would like to point out that this presents a relatively complex situation, because without relatively extensive fish passage devices, fish could not get up the river. However, it would not be feasible even to consider, under the present situation, fish passage devices without thinking about pollution control.

There is one other factor also, which is the upstream spawning areas, and whether these would be areas appropriate for spawning.

In addition to that, our investigators indicated while they had considerable data on industrial pollution, additional data are needed to evaluate significant industrial contributions other than the pulp and paper mills. Bacteriological data are needed to ascertain the degree of organisms in the stream, and biological studies are needed to determine the effects of wastes on aquatic life.

With all deference to the reports we have had and the analyses of these for biological data, it seems passingly strange, I think, to evaluate any stream for alleged biologic contamination without going out to the stream and seeing what is in the stream. This seems to be pretty obvious. The reason why this is not contained in the report is that our investigators could not find a record of that anywhere.

We would propose then, on the basis of this, certainly to give the States of New Hampshire and Maine, and the interstate agency, sixty days, if they wish -- and this is the figure they indicated -- or possibly more, to evaluate this. Then when they were ready we would be happy to meet with them again and discuss the problem, and we are sure, in a cooperative way.

The indication here too is that we will need further study and evaluation of the stream. We would like to explore that in cooperation with the interstate agencies. We would like to extend to the States and the Interstate Commission what I hope is a helpful and cooperative hand to help them with what Federal resources we can bring to bear to assist in getting the facts of this situation in a form that all reasonable men can agree to. This is the first step. Until we have these facts, I do not think we or anyone can make a determination.

Our function here, and our primary purpose, is to strengthen and encourage State and interstate programs to abate pollution. Our complete purpose in developing these facts is to create a situation where the States and the interstate agencies under your own local law can take care of this problem.

Again I point out that we do have an obligation under the Federal law. As an officer of the Federal Government, this has been my career. I have been in the service for more than twenty-one years. We have taken an oath to uphold that law and that oath means something to us, and we are going to do it, but we would prefer, and certainly it is most desirable, to do this in cooperation with the States and interstate agencies concerned.

I think we will get the results of this Conference and the transcript of it to the States and interstate agencies and ask them when they want to get together and meet with us again.

I might say another word about our philosophy on pollution control in these Conferences. We feel we are a public agency, doing the public business in a public manner. Nothing we do in pollution control remains a secret. This is the people's business and we welcome your seeing what we are doing, and looking down our throat, or looking at us as if we are in a fish bowl. We have no data and no files and no material which is not accessible to the public and which you cannot see.

Does anyone else want to say anything before we declare this Conference recessed?

(No response.)

MR. STEIN: If not, I would like to thank you all for coming, and I believe that we have at least made a start on the statement of the problem.

(Whereupon, at 12:10 p.m., the Conference was recessed sine die.)